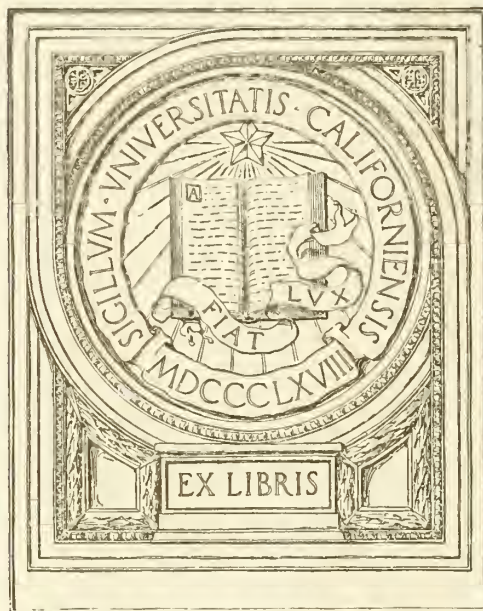




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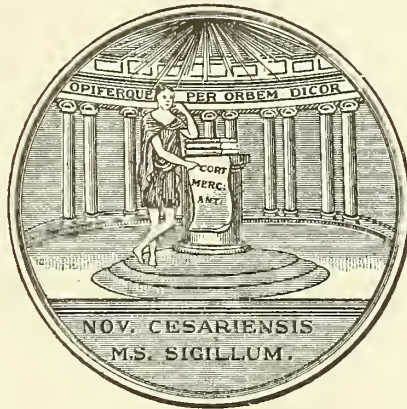
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## THE AFTER-CARE OF THE TUBERCULOUS.

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(Special Address presented at the Twentieth Annual Meeting of the New Jersey Tuberculosis League, Camden, October 22, 1926.)

It is becoming increasingly recognized that for the effective treatment of tuberculosis, particularly in the working classes, it is not sufficient to retain patients for longer or shorter periods in a sanatorium and then to allow them to return home to live under their old conditions of environment and to resume their former occupations, without assistance, advice and supervision. Everyone who has had to deal practically with this subject has had the disheartening experience of seeing patients, who have done extraordinarily well in sanatoriums, leaving the institution with disease arrested, relapse in a short time after their return to their homes and die within a few months or years.

Consideration of the pathologic conditions occurring in a tuberculous lung leads us to appreciate that the periods of sanatorium treatment usually available for working class patients are not nearly long enough to secure arrest of the disease and complete healing of the tuberculous lesion. A person who has suffered from pulmonary tuberculosis must therefore be considered a damaged life. After a period of sanatorium treatment he may be fit to resume active employment, but unless such employment can be carried out under "sheltered conditions" disaster is apt to ensue.

To provide such sheltered conditions, as far as practicable under the circumstances of the individual patient, is the object of after-care. To meet this need, after-care committees have been established in many areas in England. Such committees include members of the community who have no official connection with tuberculosis schemes but freely devote their time and energies to the cause of suffering humanity. Their sympathetic labors have prolonged the lives, ameliorated the lot and sweetened the existence of numerous sufferers.

Here I would like to interpolate that I consider the term "after-care" rather unfortunate. It appears to imply that assistance of the kind needed begins only on the patient's discharge from the sanatorium. It is better, in my view, to omit the word "after" and to speak of "care" work. It is also important to recognize that care work in tuberculosis implies not merely sympathetic assistance to the patient himself. The family must be taken as the unit, since the social and economic circumstances of the individual patient can not be dissociated from those of his family. "Early treatment of the sociologic problem arising from the occurrence of tuberculosis in a family is frequently as important in the interest of the patient and of the family as the medical treatment of the individual sufferer." (Annual Report of the Chief Medical Officer of the Ministry of Health, England, for 1921.) As soon as a case of tuberculosis becomes known it is the function, as I conceive it, of the care committee to consider carefully the whole condition, social and economic, of the family and to endeavor to discover in what way adaptation of the conditions can best be

obtained so as to secure for the patient the fullest advantage from the treatment given; to help him to live and work under the most satisfactory conditions possible and to enable the family to be maintained in health and economic independence. To postpone such consideration until after discharge of the patient from the sanatorium is to impose undue delay and to run the risk of disaster.

The extent and nature of assistance to be given must, of course, depend to some extent on the stage of disease in the patient and the prospect of temporary or permanent arrest of disease. In advanced and hopeless cases the work of the care committee is often limited and assistance from other agencies is frequently necessary.

The tendency of some care committees has been to consider that their main function was to provide material assistance, usually in the form of financial help, and to think that unless they had considerable funds to distribute, they could do little or no good. It is true that the work of a care committee is considerably handicapped if some funds are not available to enable them to help patients to tide over emergencies, but their true function is not attained if they merely transform themselves into a kind of unofficial public assistance committee. In many diseases of short duration temporary financial assistance will often avail to tide over the difficult period, and allow the patient to reap the full advantage of the medical treatment afforded to him. Tuberculosis, however, is a disease of long duration, and even when more or less complete arrest can be secured the patient has often a "damaged life", and may never be able to regain his full working capacity. Unless graduated work is insisted upon and scientifically carried out, prolonged sanatorium treatment is of itself liable to undermine the morale of a tuberculous man and induce a tendency to lazy habits and to reliance on assistance from others. Care committees should, therefore, I think, constantly keep before them the importance of avoiding as far as possible anything that will undermine the patient's self-reliance, and find ways of giving assistance while safeguarding the patient's self-respect and independence. The aim should be to help

the patient to help himself rather than to allow him to be dependent on others.

It is important that a patient should be taught that although his disease has left him with a, perhaps permanently, damaged life requiring constant care, self-denial and watchfulness on his part, it is still his duty to seize every opportunity of becoming a useful and self-supporting member of the community. It follows, therefore, that a care committee should restrict the actual giving of financial assistance as much as possible, recognizing that although such assistance may often be necessary as a temporary measure to tide over certain periods, it should only be given with the greatest circumspection, as a preliminary to the execution of a carefully arranged plan by which the patient may be expected ultimately to be able to depend on his own resources.

For many reasons it is preferable, where other agencies are in existence in the area of a care committee for giving material assistance, that their help should be invoked temporarily rather than that the care committee should themselves distribute relief. In some cases, however, this may not be practicable and the care committee may have to make grants of money or other material assistance, but the endeavor should be to make this a subsidiary function and to lead patients to look to the committee for advice, guidance and encouragement, rather than material assistance.

Work on the lines adumbrated above is, of course, much more difficult, and demands much more careful planning and anxious thought than the mere distribution of money, and to attain success the work of a care committee needs very careful organization. It is not sufficient to wait until the patient has returned from a sanatorium before considering the assistance which the committee can render. Consideration should not be delayed until sociologic difficulties have already risen or economic disaster to the family is actually imminent. Every case under purview of the dispensary, likely to need the assistance of the committee, should be considered at the earliest possible stage. In some instances it will be evident from reports in the possession of the tuberculosis officer, that the circumstances of the family are reasonably good and



that any necessary adjustment can be made without expert advice or assistance on the part of the care committee; no action may then be needed. In other cases it may be obvious to the expert sociologic worker that unless action is taken promptly the affairs of the family will soon become disorganized, e. g., by the burden of debt. Advice and help may then be required to prevent economic disaster. In another class of case, especially the families of tuberculous bread-winners or tuberculous mothers, the onset of tuberculosis produces immediate economic disturbance and calls for effort on the part of the care committee to assist in the reorganization of the family arrangements. In such cases help may sometimes be given by inducing relatives or friends of the patient to take charge temporarily of one or more children and thus relieve the burden on the family; if the children are at work it may be possible to find more remunerative employment for some of them, or to interest the patient's employer or others to render assistance. In some such way immediate difficulties may be overcome, but in the case of the tuberculous bread-winner it is necessary to begin at once to make plans for the future. The tuberculosis office may be able to say how long the patient is likely to stay in the sanatorium and to give some idea as to the probable extent of his working capacity on his discharge from the institution.

The first point then to consider is the precise nature of his old occupation and the conditions under which it was carried on and how far he can suitably continue in it after discharge from the sanatorium. The occupation may not be ideal, but it may be the lesser evil for him to return to it than to undertake some new occupation which may be theoretically more suitable. A good standard of living is necessary for a family having a tuberculous member and good wages are therefore an important element. As a rule, a worker can earn a higher wage in an occupation which he has practiced for years than in some new occupation which he has only recently learned, e.g., through a course of training in a sanatorium. It is necessary, therefore, to consider whether the conditions of the old occupation can be varied so as to make the occupation reason-

ably suitable, or whether some slight change in the nature of the employment can be made which will enable the patient's old experience still to be of service.

As an illustration from an American article on this subject, I may mention the case of a tuberculous policeman, who was unfit to return to his former duties, involving exposure to damp and cold and possibly sudden severe exertion in pursuit of malefactors, for whom employment was found as a night watchman in an important building, for which his previous experience rendered him specially suitable. It would be futile to ignore the grave difficulties in finding suitable occupations for tuberculous men, particularly in present industrial conditions. Difficulties arise from the attitude of the workers as well as of employers. Both are inclined to take an exaggerated view of the infectiousness of tuberculosis. Since the tuberculous man usually has his working capacity considerably reduced, workers object to his inclusion in team work in which the pace of the slowest may affect the earnings of the team. Employers are reluctant, or may find it inconvenient, to provide easier conditions for selected individuals than for other employees, or to show them greater consideration. To surmount all the difficulties requires a large stock of patience, indomitable perseverance, tact and sympathetic imagination as well as accurate knowledge of local conditions. But in many cases it can be, and has been done. If, as has been stated, Mr. Henry Ford can find remunerative employment for all the disabled men, including those disabled through tuberculosis, the exercise of ingenuity should find means of resettling tuberculous men generally in industrial life. It may be necessary to suggest to employers how conditions may be modified for an old employee who has tuberculosis; to reassure employers and fellow-workmen as to the limitations of infectiousness of tuberculosis in a patient who has been treated and trained to take precautions, and to give guidance to the patient as to the precautions which will enable him to work without being a danger to others.

The foregoing remarks have been based mainly on a consideration of the case of the tuberculous man. Disorganization of the

family life is more apt to occur rapidly if the bread-winner is stricken with tuberculosis than when the patient is some other member of the family, and the problems requiring solution are apt to be more intricate and difficult. But it must not be imagined that the care committees are not concerned also with women and children. Their special needs also require attention. Particularly when a tuberculous mother is in question it is necessary to consider what assistance can be given. Arrangements for help in the home during the mother's absence, or for planting out children temporarily with friends, may go far to enable a woman to accept sanatorium treatment with an easy mind and to obtain full advantage from her treatment. Another direction in which a specialized form of after-care work is coming into operation in some districts is in connection with surgical tuberculosis. The pioneer work carried out in connection with the Shropshire Orthopedic Hospital, Oswestry, has stimulated others to adopt similar methods. Patients with bone or joint tuberculosis who have returned home after a period of treatment in a residential institution require to be kept under constant observation to see that splints or other appliances are being regularly worn or if they require adjustment or replacement, and to ensure that in the event of recurrence of deformity or any relapse, the patient is brought at once to the tuberculosis officer to consider the desirability of further residential treatment.

The difficulties in arranging for the absorption of the tuberculous person into the ordinary routine work of the community after his discharge from a sanatorium, while still affording him, in some measure, the sheltered conditions necessary and the medical supervision which is so desirable, has led to attempts to deal with tuberculous workers on special lines, and these have so direct a bearing on the subject of this paper that it may be useful to indicate what has been done in England during recent years.

#### TRAINING COLONIES.

Recognizing that the conditions of many occupations—so carried on—were detrimental to tuberculous persons, it was conceived that it was desirable to train men, while in sanator-

iums, for other occupations. At first, owing to the importance of open-air life in the treatment of tuberculosis, and in the maintenance of health in the consumptive with arrested disease, it was thought that patients should be trained to work on the land. Thus, so-called farm colonies were started. The advocates of this idea appear to have overlooked the fact (1) that farming is a skilled occupation and can not be taught in a short period of time, (2) that much of the work is of a very strenuous nature and far too heavy for the average consumptive, (3) that the town dweller accustomed to urban life and to the wages of a skilled occupation will not be content to settle down to life in the country on the wages of a farm laborer. Training in market gardening was tried in some instances. Much of this work is too heavy and the skill and knowledge required is not inconsiderable. Work under glass is not appropriate for consumptives.

After the war, the Y. M. C. A. started a colony for ex-service men with a view to training them to occupy and run small holdings. This scheme was carried out on an estate at Kinson, near Bournemouth, but it has not been very successful although every effort was made to provide the best conditions. A few men were settled on small holdings. They did not coöperate with each other as was hoped. Some failed through lack of business instinct; others from personal failings. Economic circumstances appear to have made most of the remainder take up other employment, their holdings being worked to some extent in spare time.

Attempts to train patients in other occupations have been made. The most completely organized scheme was one developed under the auspices of the Ministry of Pensions and Ministry of Health after the war, for the benefit of ex-service tuberculous men, the most careful attention being given to the selection of trades to be taught, and steps being taken to ensure that the men chosen for the courses of training should be suitable physically and psychologically. Special training sections were established at 11 different sanatoriums. The following occupations were taught: (1) Market gardening, poultry, pig and bee keep-



ing. (Selected because of the demand by the men themselves for this training rather than because it was thought very suitable.) (2) Rural carpentry. (3) Furniture repairing. (4) General house repairs. (5) Tin smithing, art metal work, etc. (6) Brush and basket making. (7) Jewelry, watch, clock and china repairing. These courses were designed to give men desiring to work on their own account in suburbs, country towns or large villages, a general training which might enable them to earn a living, particularly when supplemented by a pension. It was recognized that (1) a course of 9 or 12 months' training might not suffice to render the men expert and quick at the work, and (2) that the chief difficulty would be the commercial side of the work, i.e., to find a remunerative market for their labor. The results have not been very encouraging as comparatively few of the men who were trained are now carrying on independently the trade which they were taught. Some, however, have obtained work, under employers, on occupations similar to those in which they were trained.

#### OCCUPATIONAL TREATMENT.

I regard occupational treatment of sanatorium patients as essentially care work because it tends to preserve them from the degeneration, both physical and psychologic, and the lowering of morale which is so likely to occur if during prolonged residence at a sanatorium the patient is allowed to idle his time away. Graduated labor of the old type had its uses, but the employment of patients on useful and interesting work has a far more potent effect in preventing boredom and grumbling and in providing that atmosphere of hope and confidence which is so beneficial to the tuberculous man. It is not necessary that the employment furnished should have any connection with the work which he will undertake when he leaves the institution. Anything which will sustain his attention, evoke intelligent interest and give occupation for mind and body is useful, particularly if it involves the making of articles of use or beauty. But it is frequently possible to employ men in occupations which while not providing them with an alternative trade may nevertheless enable

them to supplement their earnings after they leave the institution.

I have here some photographs of patients engaged in various occupations at the Cheshire Joint Sanatorium in Shropshire. No one who has witnessed the differences in atmosphere of an institution where occupational treatment is carried out on right lines compared with a sanatorium which relies on older methods can doubt the beneficial effect.

At the Nayland Sanatorium, Suffolk, under the direction of Dr. Jane Walker, various occupations have been tried. Intensive market gardening on the French system failed. Embroidery, dressmaking and tailoring have been tried with limited success. Jewelry making and furniture repairs have proved successful. A handicraft worker has been engaged to teach embroidery, leather work, etc.

Wrenbury Hall, Cheshire, purchased with the aid of a grant from the British Red Cross Society, provides room for 50 patients. The medical superintendent has had practical experience as a farmer. Selected patients only are admitted, being transferred from the county sanatorium; the farm and garden have proved fairly successful in this instance. Boot repairing and wood working are also carried on.

At the King George V. Sanatorium, in Surrey, which receives poor patients from London, occupation is given in leather work, and men showing taste and capacity for this work are employed after discharge from the institution in the "Spero" workshop in London to which I shall refer later.

The Baguley Sanatorium, Cheshire, is a large institution dealing mainly with advanced cases of tuberculosis from Manchester. It has, however, been found possible to employ many of these patients in carpentry, upholstery work and in the cobbler's shop. Work on a hand loom, basket making, poultry rearing and horticulture are also carried on.

In this section should also be mentioned the successful work of the Hull After-Care Colony, at their institution at Walkington established in 1918. This institution is administered on modified sanatorium lines. Only patients with quiescent or arrested diseases are admitted. Men remain for 12 months or

longer. Market gardening and fruit growing, poultry farming, pig keeping, stock raising, boot repairing and general repair work are practiced. The men are given a general training in all the outdoor courses and are not limited to instruction in one course. Trainees are paid a bonus 2d. per hour. Out of a group of 80 patients who had passed through the institution 30 were subsequently found to be practicing the work in which they had been trained, 8 were employed in market gardens, 5 were farm hands, 2 were managers of poultry farms, 5 were jobbing or nursery gardeners, 7 were boot repairers and the remainder were engaged in various occupations for which their training had fitted them. The fact that such a high proportion of trainees had found suitable employment must be attributed to the activity of the colony and care committees in obtaining posts for them. Out of 108 patients who had completed their courses of training all but 16 were fit for work or actually at work in 1925.

Stanningall Colony, Norfolk, was started in 1919, much of the capital being found by the British Red Cross Society. It was originally intended to develop into a training center and village settlement, but the exigencies of national and local finance coupled with some lack of a definite policy on the part of the committee of management have delayed the realization of the original scheme. At present there is accommodation for 50 patients, and 6 cottages have been provided for ex-patients who are in effect members of the staff. The occupations followed are: (1) Fruit and market gardening, (2) poultry raising, (3) pig keeping, (4) basket and cane furniture making, (5) carpentry, (6) boot repairing. There is an excellent workshop fitted with some machine tools, which was erected especially for the work. The instructors are ex-patients. Moderately advanced cases are not excluded, hence there is a fair amount of sickness among the workers. Patients are paid for work done at the rate of 2½d. per hour subject to a maximum of 5 shillings a week. The commercial side of the work has not been adequately developed and the industrial side is consequently not financially successful.

At the Hawkmoor Sanatorium, situated on the slopes of Dartmoor, Devonshire, selected patients are employed in the building of poultry houses, hives, etc., and in work about the sanatorium under a skilled instructor—himself an ex-patient. Some of these workers remain on as employees, but the majority return to ordinary life. The scheme has been more successful than some in placing its trainees, after discharge from the institution, in remunerative work.

#### VILLAGE SETTLEMENTS.

The success of occupational treatment of sanatoriums and the knowledge of the deplorable results which often follow when an arrested case of tuberculosis leaves a sanatorium to return to his home and old employment have led to the development of institutions which combine sanatorium treatment with permanent settlement of the patient—when their disease is arrested—as members of a community established with the sanatorium as a center. The most highly developed example which we have in England of this type is Papworth, which I shall refer to later. But it is significant that in other places development is occurring on similar lines.

Thus in connection with the Wooley Sanatorium, Northumberland, a hostel with 8 bedrooms has been provided with the idea of bridging the gap between sanatorium treatment and the patient's discharge to his home. The capital expenditure has been provided partly by a grant from the British Red Cross Society and partly by contributions from patients and ex-patients. Twelve settlers are employed in the various industries which also provide occupational treatment for sanatorium patients. In each department the workers are under the control of a foreman who is an ex-patient.

	Trainees. Settlers.	
Pig Farm	3	2
Fur and Wool Farm (appr'ly)	25	3
Woodwork Department	6	1
Printing and Publishing Dept.	5	3
Show Card Department	7	—
Stores Department	—	1
Office	—	2

Settlers are paid wages varying from 10/6d to £1 per week.



An interesting feature is the publication of a monthly news sheet called "The Temps" which, while giving news of the sanatorium and settlement, has become a magazine devoted to the health activities of the county of Northumberland. The fur and wool farm department is, however, the outstanding success.

East Lancashire Tuberculosis Colony, Barrowmore Hall, Cheshire. This institution, financed in the main from a Red Cross grant, opened in 1921 with 42 beds. There are now 112 beds. The original proposal was to provide 200 beds for treatment and training and to develop a village settlement. Owing to the need for national economy, government assistance was not forthcoming to the extent expected. The development of the settlement side was hampered by financial difficulties and there are only 10 cottages occupied by settlers. A block of 40 beds is devoted to the treatment of sanatorium patients and the bulk of the remaining beds are occupied by patients receiving treatment and training. Few of these men have any prospect of becoming settlers and few are able to make use of their training subsequently. The men benefit mainly by prolonged treatment associated with occupation. Carpentry, poultry keeping, gardening and pig keeping form the main occupations. There are small upholstery and boot repairing departments. The farm is run by healthy workers. Trainees are paid on the basis of 2d. per hour subject to a maximum of 5/- a week. The cottages are occupied by ex-patients who are engaged in the industries or on the staff of the institution and are said to be paid at trade union rates. The industries as a whole are not self-supporting. There are the usual difficulties in competing with ordinary business firms. Insufficient attention appears to be paid to business management and the development of a sales department on a commercial scale.

British Legion Village and Preston Hall Sanatorium Training Colony, Kent. This was opened in 1921 by the Industrial Settlements Incorporated—a voluntary body which had raised a large sum from charitable sources. Radical alterations in the arrangements were made in 1925, the administration being placed under Dr. Varrier Jones, of Cambridge. There

were 56 hospital beds, 52 shelters for ambulant cases, 16 beds in hostel and 72 cottages. The following occupations have been carried on recently:

	Patients	Settlers
Carpentry	18	36
Employing		
Building		20
Transport		1
Office		3
Book-keeping		1
Garden	4	5
	22	66

The place has not settled down sufficiently under the new regime to form an opinion as to the direction in which developments will occur or as to its prospects.

Papworth Hall, Cambridge. The most completely developed village community in the world for the rehabilitation of the tuberculous is the remarkable institution developed through the persevering and sagacious effort of Dr. Varrier Jones, its Medical Superintendent, warmly supported by a group of voluntary workers in Cambridgeshire. The village of Papworth is situated about 12 miles from Cambridge, on that ancient Roman highway leading from London to the north, known as Ermine Street. The germ of this interesting experiment was planted at a little village called Bourn where in a tiny colony of patients living in detached shelters Dr. Varrier Jones started employing his patients in useful occupations. The idea of Papworth is to have an institution receiving tuberculous patients in all stages, advanced as well as early, to prolong sanatorium treatment by giving the patients useful and interesting occupations and to provide for patients, who obtain arrest of their diseases, sheltered conditions where they can spend the rest of their days living a communal life in their own cottages and earning their livings at one of the occupations carried on in the institution. A fine old country house acts as the administration center and also provides accommodation for bedridden and advanced cases. Grouped round this are shelters for ambulant patients. When patients are able to work regularly and systematically for the whole week they are transferred to hostels, which form a kind of a half-way house between the sanatorium and the village settle-

ment. Ultimately the suitable case obtains a house in the village, transplants there his wife and family and becomes a regular member of the village community.

At this institution various industries are in active operation. Garden work and poultry rearing are carried on but no stress is laid on these as remunerative occupations for the tuberculous. But rough carpentry, cabinet making (including staining and French polishing) and upholstery work are very successful. The printing shop employs a considerable number of persons and does work for the Cambridgeshire County Council and other bodies. In connection with this is a book-binding department which is increasingly successful. Sign writing is another class of work found suitable for certain cases. Boot repairing and jewelry making are also carried on. These various industries are allowed to expand as opportunity offers. One of the most successful is the department making suitcases, trunks, attache cases, etc. Beautiful work is produced which can challenge comparison with the best work of commercial firms and both in this section and in the cabinet making and upholstery work the community has succeeded in obtaining contracts from high class city firms. The most recent development is the installation of a plant for the production of cheap fibre suitcases and attache cases which are made at a price which enables them to compete with cheap German goods. Large workshops have been built for the various industries and these are constantly being enlarged. Wherever possible, machinery is installed to do all the heavy work so that there is no undue tax on the physical capacity of the worker.

The great success of Papworth has been due primarily to the establishment of an atmosphere of hope and confidence in which all work for the good of the community, but the enterprise could never have reached the position which it has achieved had it not been for the shrewd financial judgment which has developed the commercial side of the undertaking, checking costs, avoiding waste, finding customers, and selling the goods—in competition with outside firms employing healthy labor—at remunerative prices. When it is

recalled that the institution has no large reserve fund on which to draw in the event of financial losses the achievement is seen to be remarkable. It may be of interest to state that no fewer than 5 or 6 commercial travelers are constantly employed in selling Papworth goods; only one of these is an ex-patient.

#### INDUSTRIAL WORKSHOPS.

Although a successful village settlement like Papworth affords the ideal solution of the problem of rehabilitation of the tuberculous worker it is clear that a considerable number of persons cannot avail themselves of it, either for family reasons or because of disinclination to settle down permanently in the country. The recognition of this fact has led to interesting experiments to find industrial employment for tuberculous men after they have left the sanatorium.

One of the most interesting of these is the Factory-in-the-Fields, near Leeds, which owes its inception very largely to the energy, enthusiasm and organizing ability of Mr. G. W. Allen who was himself a consumptive ex-service man. This institution was started in 1920 with a capital of £3000, obtained by pooling grants of £50 each made to 60 tuberculous ex-service men by the Civil Liabilities Department of the Ministry of Labor. Later the British Legion advanced £3000 on debenture. During the earlier years annual losses were made but when the society found its feet these losses were made good in subsequent years. Nothing could be set aside however for new premises.

A number of occupations were tried, some developed, others were abandoned. Today the cutting, bundling and distribution of firewood is one of the chief occupations. Splitting is done by machinery and bundling by hand or foot presses. Travelers obtain orders and delivery is carried out by motor lorries, thus affording occupation for additional tuberculous men. Brush-making, largely carried out by machinery occupies a number of men. Men are trained for this work in the factory. Window cleaning contracts are secured and a number of men are engaged in this work for which little preliminary training is required. Handy men do such work as the relaying of carriage



drives, cleaning motor cars, cleaning spouting and work in connection with buildings which almost any man could do after working for a week or two with another man. Public works contracts involving the excavation of earth, the widening of existing roads and the making of new roads have been accepted.

The main occupation in this section is the manipulation of up-to-date machinery. Contracts varying from £4000 to £25,000 have been carried out successfully for the Leeds Corporation. During 1925, 190,000 tons of earth were removed without a pick or shovel appearing on the job. The total number of men employed varies according to circumstances but at present the average is about 100. During the past 5 years about £40,000 have been paid in wages. Trade union or trade board rates are paid in all cases. The original factory consisted of 2 army huts joined together. These huts got into a bad state of repair and as there is great need for increased accommodation for the development of indoor industries, the society recently purchased, with the aid of the Joint Council of the British Red Cross Society and St. John of Jerusalem, new premises which are being converted into an excellent up-to-date factory.

The medical side is very specially watched. All employees are passed by the tuberculosis officer of Leeds who fixes the number of hours of work which each man can work daily and states, in general terms, the type of work the man is capable of doing. As far as possible, men are employed in work upon which they were formerly employed, or as near that as possible. All employees are seen by the tuberculosis officer at frequent intervals and the type and hours of work are not varied without his approval. It is stated that in almost every case after a period of employment the patient has appreciably improved in health. The fact that so much of the work of this organization is of an unskilled character or repetition work involving little preliminary training makes it very suitable for the needs of a town population.

Spero Leather Workers. The Central Fund for the Industrial Welfare of Tuberculous Persons opened a workshop in the heart of

London at the beginning of 1923 for the manufacture of fancy leather goods. This is a highly skilled occupation and considerable preliminary training is required. At least 6 months' training is given to each man during his course of treatment in King George V. Sanatorium belonging to the Metropolitan Asylums Board. His training is especially adapted to fit him for employment in this particular workshop, for it was found that men who had received a general training in fancy leather work could not as a rule be employed without retraining. (This is also the experience of the Factory-in-the-Fields with regard to brush-making). Complete coördination of the training and employment workshops is regarded as an essential feature of the scheme.

This work has the drawback that the men are required to practice the trade for long periods before they become sufficiently dexterous to turn out a fairly normal output. The work apparently requires too much skill and experience to render it suitable for general adoption. Further, owing to the length of training and subsequent practice required, it is unsuitable for patients who are not likely to follow it for an indefinite time or who may break down before they become thoroughly competent. These drawbacks restrict the application of the work to a small section only of the tuberculous community.

The workshop employs 23 men and the general experience is that the men, freed from undue pressure and from anxiety as to the possible loss of their work if they fall ill, have done well medically and the relapse rate is much lower than in the case of men who return to ordinary work. All the men remain under the supervision of their tuberculosis officers with whom the medical officer, who visits the workshop from time to time and who controls the work of the men from the medical standpoint, is in constant touch. The workshop has had a severe struggle to secure markets for its goods and, although sales increase year by year, the scheme is not by any means yet self-supporting.

The Central Fund with the assistance of the British Red Cross are now engaged in estab-



lishing a firewood bundling factory in London on lines similar to those adopted by the Factory-in-the-Fields and there is every probability that the factory will provide work for about 20 men early in the Autumn.

Semper Fidelis Workshop at Exeter. This workshop was established out of voluntary funds in 1921 in the playground of a burnt out council school. Woodwork is the chief occupation and a workshop has been fitted for this work at the end of the playground. Shelters, hutches, barrows, picture frames, etc. are made. One of the workers acts as manager under the committee. Workers live in Exeter and remain under the supervision of the tuberculosis officer who regulates their work. Relatively advanced cases may be admitted. At one time all workers were ex-service men in receipt of treatment allowances. When these men were rated for pension, difficulties arose with regard to the maintenance of some of the men and their families. Today all workers are in receipt of a pension (usually substantial) or other external income and receive from the workshop bonuses granted from actual profits made. These are small in amount.

Experimental work on somewhat similar lines has been carried out at other places, namely, Brighton, Blackburn, Barnsley and at the Efford Colony Plymouth. Perhaps these notes will give you some idea of the various directions in which the problem of the after-care of the tuberculous has been attempted to be solved in England. We can not claim that finality has been reached, but we have learned a good deal as to the difficulties to be overcome, the mistakes to be avoided, and the general principles which are essential to success. We have learned the importance of the personality of the director of such an enterprise and the need to arouse the interest and whole-hearted coöperation of the tuberculosis man.

The objective aimed at, the rehabilitation of the victim of this crippling disease, is a worthy one, claiming the sympathy and support of every intelligent and thoughtful citizen and justifies using our utmost efforts to achieve success.

## THE ACUTE ABDOMEN.

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(Address of the Retiring President of the Morris County Medical Society, at its Annual Meeting, September 21, 1926.)

In selecting this topic for a paper, I do so, conscious of the fact that I can add little or nothing original. My object is simply to emphasize the importance of this condition in every day practice and to give you the benefit of my humble experience for whatever that is worth, in the hope that it may refresh your knowledge and help a little, possibly, in the management of this class of patients.

The acute abdomen is ever with us, hardly a week passes by, but that one of us is confronted by this condition with its many problems, and no matter how extensive ones experience, or knowledge, we are all conscious of the pitfalls which have trapped the best of diagnosticians, and we know that we must be alert if we are to avoid the tragedy which results from too late surgery or from surgery which had best never been done.

The great variety of lesions in acute abdominal disease, and the character of the symptoms of allied conditions, make this one of the most important problems for the Doctor, and in no other is there required keener judgment, more extensive knowledge or more rapid action. Owing to the great variety of lesions and the irregularity of location and formation of the anatomic structures, differentiation is at times impossible. A consideration of the pathology teaches us that in a majority of cases the acute attack is but the end-result of some chronic process; in many cases there is the history of previous attack, or of chronic functional disorder and this should be remembered in making the diagnosis. This calls to mind, however, what I have just said about what we may term "the freak of nature", for often there is an absence of significant history, and operation discloses pathology which gives unquestionable evidence of chronic and long-standing serious diseases, the acute attack being the first observable evi-

dence. All of this adds to the possibility of error in diagnosis.

The end-result of the great majority of acute abdomens is peritonitis. If treatment is to succeed, therefore, early diagnosis is essential. The first one on the scene has the best chance and assumes the greatest responsibility for the symptoms and signs are usually localized at the outset. After peritonitis has advanced the picture becomes clouded, the diagnosis more difficult and the prognosis more doubtful. It is during the first stage that surgery offers the best chance.

Ochsner called attention some years ago, to what has been termed "The Silent Belly". When peritonitis has become general or diffuse, the primary lesion ceases to be the chief factor, the patient must now overcome the peritonitis to recover. At this stage there is no localized sign to indicate the cause. It may be wise under these conditions to defer surgery and wait for the peritonitis to subside; localization may again become evident and the pathology be attacked with some certainty. This is dangerous ground, however, and requires skillful judgment, for as a general rule the acute abdomen should be operated on as soon as seen, no matter what the stage, where localization is evident or has been evident. In the advanced cases, however, surgery should be conservative and limited to direct attention to the lesion or its immediate sequels. All else is meddling. Ochsner's treatment should be carried out in all cases and can be most effectually combined with the conservative operation. This treatment includes absolute rest of the stomach, with lavage if indicated, morphin, ice locally, Fowler or other posture as indicated, Murphy or some similar drip, fluids intravenously and supportive stimulation.

Should a patient recover from an acute abdominal attack without surgical intervention, the doctor should insist upon thorough investigation of the cause, be assured that the pathology is there, as a second attack may prove fatal. The doctor who neglects to do this assumes a tremendous responsibility, especially as the personal physician oft times has more influence with his patient than an array of consulting talent. Every physician should

therefore, be familiar with living surgical pathology. This can only be seen in the operating room. Whether a doctor does surgery or not, the more he knows about living surgical pathology the better doctor he is. The operating room is therefore important for the physician as well as for the surgeon.

Any classification of the chronic underlying causes of the acute abdomen must commence with appendicitis. This is without question the commonest chronic disease in abdominal pathology and is probably the primary cause of other chronic lesions. Next in order of frequency are duodenal ulcer, gall-bladder disease, hernia, gastric ulcer, tumors and pancreatitis; also congenital formations or defects and adhesions from previous operation or disease.

Classified according to lesion the acute abdomen means, first, appendicitis, and then in the following order: cholecystitis, perforated duodenal or gastric ulcer, acute salpingitis, acute intestinal obstruction, ruptured ectopic pregnancy, twisting of the pedicle of pelvic tumors, ruptured ovarian cyst, acute diverticulitis, acute pancreatitis and mesenteric thrombosis. Such conditions as hernia through normal apertures like the diaphragm and the foramen of Winslow can only be recognized at operation, but the symptoms are always serious and indicate prompt surgical interference.

One should always have in mind the possibility of acute pneumonia and acute pyelitis; both of these conditions have been mistaken for the acute abdomen. Either may cause at the outset reflex abdominal pain and localized tenderness, and require most painstaking examination to differentiate them from true abdominal lesions. Needless to say, operation under such conditions is surgery that might best never have been done.

It is not my purpose to attempt a description or differentiation of all of the conditions responsible for the acute abdomen. Rather I wish to emphasize those general or common signs which indicate serious pathology and demand prompt surgical intervention, and to point out some of the causes of confusion in diagnosis and treatment. An acute attack of

abdominal pain or distress demands prompt and serious consideration. Never delay in answering such a call, and do not be misled by the history of dietary indiscretion, but depend rather on the symptoms and physical signs. I have seen acute appendicitis and perforated ulcer follow the midnight supper. I remember a patient who was treated for 3 days for indigestion because his attack came on shortly after eating 2 bags of peanuts at a ball game. When I was finally called the man was very evidently the victim of general peritonitis, from a ruptured appendix 48 hours previously. (This was confirmed at operation). Beware of cathartics; never give such drugs during acute stage. If in doubt about an acute abdominal attack apply palliative measures, call again in 6 hours, and if still in doubt send for a surgeon or send the patient to hospital.

Any patient, suddenly seized with acute abdominal symptoms in the presence of an abdominal scar, evidence of previous operation, should arouse suspicion of serious trouble! At once, intestinal obstruction should be in the mind of the doctor. Let me say in this connection, that delayed operation in intestinal obstruction means death no matter what the cause. If one waits for fecal vomiting, distended abdomen, and high blood count, operation may be too late. Blood count is of no value. The chief symptoms are sudden severe pain and localized tenderness with nausea or vomiting. The patient looks sick; constipation completes the picture. If operated on late, it may be wise not to spend too much time seeking the cause of the obstruction, but do an enterostomy as rapidly as possible. This gives vent to the process and stops further poisoning of the gut. Combine this with intravenous saline, repeatedly administered, to relieve the rapid and extreme dehydration, and the procedure may save your patient where attempt to locate and relieve the obstruction will fail.

The mortality of the acute abdomen increases rapidly after the first 12 hours, and each additional 6 hours adds an increasing percentage of failure for surgery. The late John P. Murphy once said, "Somebody has been to blame for every death from acute peri-

tonitis". Early radical treatment in these conditions is conservative treatment. I have never been sorry for operating too early, but oh, the regret and sorrow when too late, to say nothing of the chagrin.

One of the less common and sometimes confusing lesions of the abdomen is acute diverticulitis of the sigmoid. The signs are much the same as those of acute appendicitis except that localization is in the left lower quadrant; constipation, flatulency with discomfort when passing gas and a localized mass in the left lower quadrant should suggest this condition. The passing of gas differentiates it from intestinal obstruction. The operation problem here is much the same as in acute appendicitis and early diagnosis is equally as important.

A word about ruptured ectopic pregnancy. I mention this because there is some difference of opinion about the management. The danger here is hemorrhage. One of the first principles of surgery in the presence of bleeding, is to tie the vessel. These patients should be operated on as soon as seen. The practice of waiting for reaction is dangerous. I have often operated in this condition when the patient seemed in extremis and have never seen anything but good result. We can apply restorative measures much more confidently and successfully knowing that we have a ligature around the bleeding point and that there is no danger of secondary hemorrhage. The operation is simple and can be done under gas and oxygen.

A rarer lesion, while on this subject, is rupture of a corpus luteum or other ovarian cyst. The onset is much the same as in ruptured ectopic. There is a sudden severe pain accompanied by collapse, but absence of a mass; hemorrhage is evident. The local pelvic signs may be misleading, especially if the patient be unmarried. These symptoms should suggest this condition, and the question of marriage should never weigh too strongly in making diagnosis.

If one condition in acute abdominal disease stands out above all others in importance of immediate diagnosis, it is perforated ulcer of either stomach or duodenum, for a few hours delay here actually means the difference be-



tween life and death. If operated on within 3 hours recovery is practically assured; if after 9 hours the mortality is 50% and it increases with every hour thereafter. The signs are too characteristic to allow of error in diagnosis. One should actually recognize the typical case in the dark, by merely placing the hand on the abdomen. The retracted board-like abdomen is peculiar to this condition, when following immediately upon a sudden, severe attack of epigastric pain, in an adult suddenly stricken, accompanied by the signs of shock. I have never found it necessary to do more than close the perforation and get out quickly. In several of my cases the ulcer seemed to have been cured by the perforation, for there have been no symptoms after recovery and the patients have remained well. This too in patients who admit long standing stomach trouble before the accident occurred.

Any discussion of this subject would be impossible without a word about appendicitis. Certainly it is a conservative estimate to say that 60% of all acute abdomens are appendicitis. When in doubt go for the appendix. Owing to wide variation in the position of this organ, it very often is confused with other acute conditions. When high it may be confused with gall-bladder disease or ulcer and when low, with pelvic disease. Then too, acute appendicitis does not always behave the same way. Ordinarily acute epigastric pain, with nausea or vomiting, soon followed by lower right quadrant localized pain and tenderness, with an increased pulse rate, constitutes acute appendicitis. There may or may not be a rise of temperature. Often nausea and vomiting are absent. Sometimes the symptoms are local in the lower right quadrant from the outset, while again, the pain may be general and localization indefinite. The blood count may be a help, but who has not seen a gangrenous appendix with a low blood count. At best, the question of blood count in all acute conditions should only be considered in relation to the physical signs and general condition of the patient. When to operate should not depend on the blood count, but on the physical signs and symptoms.

The acute traumatic abdomen is always dif-

ficult and interesting. Such injuries may be penetrating or nonpenetrating. In either case, early diagnosis is not easy. The patient is often unconscious and there is always shock, which may mask the local symptoms. The question whether to operate is often difficult to determine. Pain is not always a reliable guide. Perforated or ruptured organs and hemorrhage are the likely lesions. The general condition of the patient, the character of the pulse and abdominal rigidity furnish the important signs. A rapid pulse of low tension, continuing after the first shock suggests hemorrhage. Rigidity and localized tenderness are most suggestive of serious organic injury. Of course, bleeding from any of the organic outlets is significant. It is good treatment if in doubt, to operate upon such cases. No harm can result from exploration, while to procrastinate may entail serious risk of life. The abdomen should be opened if there is not a reasonable certainty that the intraabdominal injury can recover without operation.

How to proceed in operating upon the acute abdomen, what to do and what not to do, are questions to be determined by personal experience, and the degree of success depends very largely on the ability of the individual surgeon to size up the situation, an ability which is usually measured by his knowledge of abdominal pathology and organic physiology. It is foolhardy to attack a walled-off appendiceal abscess from the median line, or to attempt resection of an intestinal tumor for obstruction of the bowel if the patient's condition is extreme. The primary object of surgery in these conditions is to save life. Every case is an emergency. This is no time for fancy work or extensive attempts to cure underlying pathology. Enterostomy in acute obstruction, local repair of lacerated organs, drainage of localized abscesses or ligation of bleeding vessels, going in carefully and getting out quickly, with post operation management consistent with the natural processes at work, is master surgery and may bring about recovery in conditions which appear hopeless.

## A FEW REMARKS ON ABDOMINAL DIAGNOSIS.

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A former professor of mine is credited with saying that if you want to learn a lot about a subject the best thing to do is to write a paper on it. Then, by the time the paper is written, read, and all the adverse comments and criticisms are in, you will have a good working knowledge of the subject. This accounts for the subject of my paper today, as I have been very acutely aware of my lack of knowledge in diagnosis of abdominal conditions, and must do something to decrease my ignorance, if possible. Of course, some of us who are surgically inclined have reduced diseased abdomens into 2 categories; those needing operations, and those in which we can not find justification for an operation. If the truth may be spoken, these often come as near the mark as those arrived at by much careful and painstaking examination and deliberation. I recall seeing a case operated on at one of our leading clinics only last Winter. The medical side, after making an exhaustive study, diagnosed carcinoma of the stomach. The surgical side, after trying to disprove this, had to agree. The x-ray diagnosis was the same. At operation, that ever present help in time of needing a diagnosis was discovered; the surgeon removing a chronic appendix. However, we must strive toward perfection in this field, even if failure does attend our efforts more often than we care to admit.

The use of x-rays, cystoscopes, proctoscopes, sigmoidoscopes, and peritoneoscopes, together with the laboratory findings from blood, stomach contents, stools and urine, have, of course, to some extent simplified the diagnosis of abdominal tumors, but we should always try to come to a definite conclusion before resorting to these most valuable aids, not only for the personal satisfaction of making a good diagnosis without them, but so that we may more intelligently pick out the tests to be used and so conserve not only the time of the specialist and

our own time but also the time and pocketbook of our patient. We often overlook this last point. When we get an accident case with a possible fracture, we look the patient over, decide that this or that bone is probably fractured, and get a roentgenogram to check us up. If we asked for a picture of every bone in the body the X-ray Department would think we were crazier than usual, yet, when we feel a mass somewhere in the belly, we are apt to go wild and call for all the "scopies" herein before mentioned, together with all the other fixings, when probably a few minutes devoted to careful examination, observation and thought would enable us to arrive at a correct diagnosis and check ourselves up on it by the use of only 1 or 2 of these aids. Please do not misunderstand me, I am in favor of using every aid known to medical science when necessary, but just because there are a lot of them is no reason why we should not show some discretion in their use.

As my time is limited to 10 minutes, I will not attempt to take up any detailed, full, or exact differential diagnosis of abdominal conditions, but will merely call attention in a sketchy manner to some of the mistakes that are easy to make in diagnosing abdominal tumors, and review hurriedly some of the simplest procedures in making abdominal examinations.

Helping in a dispensary, in my third year at medical school, I examined a patient and made a diagnosis of aneurysm of the abdominal aorta. I called the physician in charge and proudly demonstrated a tumor with expansile pulsation. He agreed with me that it was an aneurysm but told me to go right over to the library and look up Student's Aneurysm and Phantom Tumors. I have not made that particular mistake since but I mention it here because I have had one such case referred to me since I have been in practice. Speaking of phantom tumors, I imagine we all have been much puzzled at times as to whether we were feeling a tumor or only a localized contraction of abdominal muscles. In a very emaciated person the head of the pancreas may be palpated against the spine, and the diagnosis of pyloric neoplasm made. Much the same error



may be made when there is definite disease of the pancreas. I had such a case only last week at the Paul Kimball Hospital. I examined the man and diagnosed a cancer of the pylorus. The x-ray picture and laboratory tests bore me out and I operated and found a carcinoma of the head of the pancreas. We have all been fooled by fecal accumulations in the big bowel. In Hirshprung's disease this accumulation may reach such a stage that the diagnosis of sarcoma is made. Appendicitis may give a right iliac tumor simulating a malignancy. DeQuervaine mentions a case of this kind in which he made a diagnosis of cancer of the cecum. The patient, who was well past middle age, was operated on and an entero-anastomosis performed. The tumor disappeared in about 2 months and the patient was known to be alive and well at the end of 7 years. Actinomycosis infiltrating the abdominal wall has been mistaken for an intraabdominal tumor, but I have never seen such a case. They say a man ought never to call himself a surgeon or gynecologist till he has operated for a tumor of one kind or another and found it to be a normal gravid uterus. Floating kidneys have come in for their share of being mistaken for neoplasms, and an intussusception may feel like a malignancy. The distended bladder may not be so easy to diagnose as the books would have us believe. I slipped up on such a case not very long ago. The man was brought in with symptoms pointing to obstruction. On questioning he said he had had some bladder trouble a couple of years before but no trouble to speak of since. He passed over a quart of urine in the 12 hours before operation. Examination showed a midline tumor at the navel, with tympanitic note above and below. As the patient seemed to need relief, an exploratory operation was done. We found a large, distended, thickened bladder meeting the anterior abdominal wall at its fundus and having a loop of bowel between this point and the reflection of the peritoneum; thus accounting for the idea that the tumor was surrounded by intestines and the cause of our downfall.

There is often great difficulty in palpating abdominal tumors, due to the rigidity of the

abdominal muscles, and it is this that discourages most of us right at the start and makes us turn to the specialist and the laboratory before we have any real definite idea of what condition exists. If we will only be patient and use the methods we all know, but forget or slide over, much can be found out. Of course, gentleness is essential, as well as getting the full confidence and coöperation of the patient. Let the patient get used to the feel of your hand before diving in. The hand should be as warm or warmer than the abdomen. In my own office I often turn the electric heater on the abdomen for a few minutes at the same time warming my hands and I get a much greater relaxation than I can obtain otherwise. Remember that many patients relax better with legs extended than with legs drawn up. This applies, in my experience, more to women than men. Have the patient stand and bend forward till the hands are a few inches from the floor, and in some cases you will get outlines that you missed before. Using one hand to palpate with, the other pressing it in may give a greater delicacy of touch. A series of deep breaths by the patient, with the palpating hand following the abdomen down each time and holding what it has gained, is an old and valuable method. Cabot suggests immersion in a tub of water at 110° to 120° for 10 minutes. This really gives excellent relaxation but is very little used in general practice. A short anesthesia should not be forgotten. If chloroform is used sparingly there is good relaxation, little nausea and the patient comes out fairly quickly.

It might be well to review the method of localizing abdominal tumors. If the tumor disappears or slips from the grasp when the recumbent patient raises the head or attempts to sit up, it is intraabdominal. This is not true in the case of very large tumors. If still palpable, but immobilized by this procedure, it is either in the muscle or fascia. If still palpable but movable, it is in the subcutaneous tissue or skin, and if the skin can not be picked up from it or dimples markedly when this is attempted, it is in or attached to the skin. We may discover the origin of an intraabdominal tumor which is freely movable by marking out

the arc through which it can be made to pass and taking the radius of this arc. Thus, in the case of an ovarian cyst with a long pedicle, the concavity of the arc would be down and the radius would lead us to the source of the tumor, while with a floating kidney discovered in exactly the same position, the concavity would be upward and the radius would give us the origin. A distended palpable gall-bladder discovered in the left hypochondrium would point to its origin in like manner. A very movable tumor situated about the center of the abdomen and having no curve of motility, is probably of the mesentery, small intestine or omentum. Movement of the tumor on deep inspiration is helpful in determining the origin. Those connected with stomach, liver, omentum or spleen usually move as much as 2 inches; those of the kidney, not more than 1 in. and those of the pancreas and retroperitoneal tumors scarcely any if at all. If I had fully appreciated this rule I might not have made the mistake in the case I mentioned of pancreatic carcinoma. At least I would have been more critical of the x-ray diagnosis. Do not forget that in determining this movement the hand must be held against the lowest possible portion of the tumor and sighted against a fixed object when the inspiration is taken.

Difficulties often come up in the diagnosis of tumors filling nearly the whole abdominal cavity. Is it an ovarian cyst, a fibroma of the uterus, a fibrosarcoma of the ovary, a leukemic spleen or a hydronephrosis? Demonstration of the splenic notch will clear up the diagnosis. The consistency will help us somewhat in our judgment. If a polycystic condition exists, it is more likely to be an ovarian tumor than a hydronephrosis. We can eliminate some of these by vaginal examination.

When we find a multiplicity of tumors, the diagnosis lies between malignancy and tuberculosis except in the case of multiple palpable fibroids.

In closing, I want to thank our President, Dr. Denniston, for having asked me to write a paper and choose my own subject, because even if you have received no help from this sketchy presentation, I have derived much benefit from having had to review this subject.

## IMPORTANT ADVANCES IN OBSTETRICS IN THE LAST FEW YEARS.

JOHN C. HIRST 2ND, M.D.,

(From the Department of Obstetrics, Hospital of the University of Pennsylvania.)

Upon considering modern changes in obstetric practice, we observe with much interest that new methods in every department have crept into our routine, without which we should be unable to carry on proper work. These changes, fortunately, in most instances are not alone applicable to a large maternity such as that of the University of Pennsylvania hospital, but also have to a large extent a place in the private home or office.

To begin, we can divide the most important advances into 4 groups; (1) Before conception; (2) pregnancy; (3) labor; (4) the puerperium. Under the first, we have those methods that will aid us in diagnosing the cause of sterility, and those that will overcome infertility. The now well-known Rubin test will show closed tubes in 40% of sterile women who show no other obvious cause. This test can be done in one's office in a moment, but while it may reveal nonpatent tubes it will not show *where* the tubes are closed and the procedure actually points out a great deficiency in our specialty, inasmuch as there is not yet a satisfactory method of dealing with sterility due to tubal closure. The operative procedure and chances of conception differ when the tubal obstruction is in the fimbriated end, only, or near the uterus. Very recently Jacques Forrestier and Sicard have given me photographs of the results of injecting iodized oil into the uterus and tubes, showing clearly by x-ray pictures the anatomic difficulties underlying the tubal sterility, so that we can now better tell the patient whether the ovary must be buried in the uterine cornu (Este), or whether the end of the tube merely must be opened and again blown open by the Rubin method at 4 and 6 weeks after the artificial opening. At present I have a young woman ready to deliver as a result of the transplantation of the ovary and prompt conception.



## STERILITY DUE TO OVARIAN INSUFFICIENCY.

Stockard, Professor of Anatomy in the Cornell Medical School, has plainly shown with guinea-pigs that corpora lutea injections will inhibit ovulation to the point of entire failure, and that ovarian follicular fluid will stimulate ovulation and hasten the oestrous cycle. On this basis, therefore, at the University Maternity and in our private work we have lately been injecting follicular fluid intramuscularly; with success in several cases of long-standing sterility of the functional type. We believe that this form of endocrine therapy will prove to be one of the most valuable advances in our specialty, even though the method is still only in the experimental stage and the material not yet obtainable in commercial quantities. Electrical stimulation of the infantile uterus is a logical and practicable method in treating this type of functional sterility, either with or without thyroid and dieting for the stout individuals, plus ovarian injections. With a negative vaginal electrode against the cervix and a positive pad on the abdomen, slow Farradism for twenty minutes three times a week will eventually enlarge the uterus somewhat and nearly always cause the amenorrhea to be replaced by regular menstruation. Conception has followed such treatment in 38% of our cases, of a total series of nearly 150 women.

## PREGNANCY.

There has been much interest in the subject of the diagnosis of pregnancy, and many articles have appeared recently. At present the most reliable means of determining early pregnancy (6 to 16 weeks) is by the sugar test, as reported personally by me in the *American Journal of Medical Sciences* (June, 1926) as follows: Give your patient approximately 100 gr. of Franklin granulated sugar, on an empty morning stomach, in 2 cups of tea or in 2 glasses of lemonade. Collect separate specimens of urine 1, 2 and 3 hours later, making certain that the patient eats nothing during the morning until the test is over. If there is a living ovum present, you will find glucose 87 times out of 100; usually in the second and third specimens. It is particularly useful in determining whether a miscarriage

is merely threatened, or inevitable from a dead ovum.

Under the heading of diagnosis, I would like to mention that 2 German authors have claimed 95% accuracy in determining the sex of the unborn infant by the production of a skin reaction to the intradermal use of testicular extract of the bull.

## VOMITING OF PREGNANCY.

The severe case of extreme vomiting, rapid pulse, low blood pressure, acidosis, tendency to jaundice and even nystagmus and double vision, will not respond to injections of corpora lutea but will improve miraculously under the Thalheimer treatment. This is the slow intravenous injection of 300 to 1000 c.c. of 5% or 10% glucose solution containing 10 units of insulin to each 300 c.c. of solution. The purpose of the insulin is to enable the body to store the glucose which would otherwise spill over into the urine. If the patient fails to improve after 1 week of the treatment, repeated daily if need be, we empty the uterus.

## ECLAMPSIA.

In addition to our mixed treatment, i. e. gastric and colonic lavage, purging, sweat baths, bleeding for very high blood pressure, morphin for very frequent and severe convulsions, we give also prior to any operative treatment intravenous magnesium sulphate solution, first dose 20 c.c. of 10% solution; second dose 10 c.c.; according to the new method of Alton and Lincoln.

## LABOR.

To relieve the pain of the late first stage, Gwathmey has devised rectal ether after morphin. The method is quite simple. When the cervix is beginning to dilate, morph. sulph. 1/6 gr. is given, followed in an hour by slow rectal instillation of the following mixture:

ether	oz. iiss.
quinin hbr.	gr. xx.
alcohol	dr. iv.
olive oil, q.s.	oz. lv.

This is run into the rectum by a rectal tube attached to a funnel, and should never be used unless the labor is expected to last about 4 hours after the administration. For primpar-

ous patients, it is a splendid help in most cases; many women sleeping through the labor.

#### THE FLOATING HEAD IN LABOR.

There is now a three cornered argument between Potter's popularization of version, the Barton or hinged forceps, and the Beck or low cervical cesarian section in managing the high head. The handling of a short woman, with a thick symphysis pubis, increased pelvic inclination at the inlet, hollow back and unengaged fetal head calls for much judgment. The Barton or hinged forceps is the only safe instrument to apply to a floating head, although many advocate the Kielland instrument. We have in the past year saved a number of women from cesarian section by means of this new forceps, who would otherwise surely have required section. The late Dr. Studdiford, of Sloane Maternity in New York, along with Barton, the designer, was responsible for introducing this latest addition to our already plentiful supply of obstetric instruments.

#### PUERPERIUM.

Infections of the general type have been frequently improved by Piper's method of intravenous mercurochrome solution averaging 25 to 35 c.c. of a 1% solution per dose, and only in cases of positive blood stream infection. This treatment is a severe test of the kidneys and should not be used without due regard to this fact. We are also using occasional intravenous injections of 10 c.c. maphen ampoules in the bacterial blood stream infections, which seems to be less toxic, and goes under the descriptive name of di-acetoxymercuri-nitro-cresol.

For local infections such as pus tubes, pelvic abscesses and other pelvic inflammatory masses we have performed apparently impossible improvement and even cures by nonspecific protein treatment in the form of milk injections. Plain certified skimmed milk, boiled 3 minutes and injected intramuscularly in 5 to 10 c.c. amounts every 4 days is a part of our routine prior to operation in all such cases. Aolan (Metz) is a handy milk preparation put up in ampoules, and if 10 injections fail to relieve pain and fail to markedly decrease the pelvic mass it is a most unusual

case. Even if operation is inevitable, it is easier, less radical and less liable to the necessity of drainage after these injections. During improvement, the milk may be easily given in the office, or in the home.

In order to finally determine the existence of *latent infection*, we can now do so when pelvic examination, white blood cell count, and temperature record may fail, namely by the sedimentation test. At the Maternity, no case of chronic pelvic inflammation will be operated upon until this test shows definite decrease in the rapidity of red blood corpuscles settling in sodium citrate solution. This method is extremely simple and is also applicable to the determination of latent tuberculosis. Using a Sahli hemoglobinometer tube, drop sodium citrate solution 2.5% up to the 10 degree mark, then draw venous blood from the patient into a Luer syringe, and add enough blood in the tube to reach to 100 mark, mix well and stand upright at room temperature. In all normal patients, excepting pregnant women, the R. B. C. will settle only to the 90° line in 2 hours, but in a severe case of infection, tuberculosis, pregnancy, the sedimentation of the R. B. C. will be more rapid, even down to the 50° mark in 2 hours.

In gonorrhea of the cervix, diathermy has been most successful. With an electrode in the cervix and one around the waist, an electric current is passed through the uterus and body, to generate a temperature of 118° by thermometer in the cervix for 15 minutes. Not infrequently, one such application will cure a cervical leukorrhea that may have resisted all other local treatments or vaccines. Diathermy is receiving great attention, and has opened many new fields, including arthritis and pelvic inflammations, and we believe will become immensely useful. Unfortunately, at present the apparatus is large and expensive for perfect effect, but reductions in each respect will be due shortly.

#### THE NEWBORN.

The important duty of resuscitation is materially assisted by a new respiratory stimulant, a German preparation called "Alpha-lobelin". One-half c.c. of this lobelin product if injected into the buttocks of an asphyxiated baby will usually produce great respira-



tory efforts, and is superior to the medication of atropin and strychnia. If the injection and artificial respiration have only partially succeeded in reviving the baby, the respiratory center may still further be stimulated by inhalation from a tank of 10% carbondioxide in oxygen, which mixture of gases is now provided in tanks for hospital use.

As to premature feeding, the electric breast pump has unquestionably preserved the supply of breast milk for many mothers, and saved the lives of many prematures thereby. As an example, we have recently seen 2 infants of less than 2 lb. each thrive under the care of Dr. J. Claxton Gittings in the University Maternity largely as a result of ample breast milk obtained by the electric pump. These pumps may be rented from instrument supply houses, are easy to run and can be regulated for degree of suction.

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## DIABETES MELLITUS—WHAT HOPE INSULIN?

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The monumental work of Banting resulted in the discovery of a substance quite as important in the treatment of diabetes mellitus as is antitoxin in the treatment of diphtheria. The deaths from diphtheria have been gratifyingly low since institution of the antitoxin treatment, but, on the other hand, there has been an increase in the number of deaths from diabetes mellitus in the 4 years since the discovery of insulin.

Clinicians particularly interested in diabetes are wont to tell their patients that they can now live out their normal expectancy of years, not with a life of constant deprivation but simply a life of moderation in all things. The terrors of diabetes will soon be almost entirely forgotten, for with the proper use of insulin few unyielding forms will be encountered. It is almost universally accepted that diabetes is not an inherently progressive disease. It is also generally recognized that by relieving the

functional overstrain by restricted diet and by supplying the endocrinal deficiency of the pancreas by insulin, the patient may expect to live a much more nearly normal life than was true in the pre-insulin period.

Insulin therapy is so dependent upon dietary measures for its success that a discussion of its use would be incomplete without a word as to diet. While it is true that the days of extreme fasting and the emaciated diabetic are past, still it is equally true that the discovery and use of insulin have forcefully proved the necessity for undernutrition and the balanced diet. Uncomplicated cases of diabetes should be given a thorough trial on diet before insulin is administered. Diabetes does not necessitate insulin therapy any more than all heart troubles require digitalis.

Diabetic patients are preferably started on their treatment under institutional supervision where they may be placed upon an exact diet and where frequent tests, both of blood and urine, may be carried out. The diet should be a weighed one, even in the mild cases. Only after a period of faithful adherence to this routine, may a patient of known fidelity and of acquired ability to approximate his diet, be allowed to do so. Even then he should agree to resume the weighed diet if subsequent blood and urinary tests prove unsatisfactory. Patients readily adopt the weighed diet when they realize the slight trouble involved and the great variety of food possible in their diet if they learn to balance their diet chart. When the weighed diet is explained to them as a bank account, and a gram is compared to a dollar, and they know that they have, for example, 60 gm. of carbohydrate to spend each day in various foods, they soon comprehend and become real diet enthusiasts. They realize that on a Ford tolerance they can not expect a Rolls Royce diet, and they do not dissipate their carbohydrate allowance by desiring to eat corn-on-the-cob and sweet potatoes.

Joslin has pertinently said, "Insulin is a remedy primarily for the wise and not for the foolish, be they patients or doctors". Insulin is, perhaps, the most potent agent in general use by physicians. Its powerful influence for good, in competent hands, has an equally powerful influence for harm in careless hands.

Not infrequently patients want (1) a full diet, (2) the avoidance of the use of insulin, and (3) prompt escape from institutional care. Obviously, they can do one of the three, but rarely all. Trained diabetics, as a rule, are most faithful to their treatment. If encouraged to read concerning diabetes, its dietetic and insulin treatment, they are frequently almost at once converts and missionaries.

The discovery of insulin has clarified, but not unified nor simplified, the treatment of diabetes mellitus. However, most clinicians are united in their opinion that the types of diabetes patients for whom the institution of insulin therapy is indicated are: (1) Markedly emaciated diabetics with mild diabetes; (2) moderately emaciated diabetics with severe diabetes; (3) any diabetic with acidosis, gangrene or other complication.

Insulin therapy may be considered under 3 group divisions: (1) Insulin in uncomplicated cases; (2) insulin in complicated cases; and (3) insulin in surgery.

#### INSULIN IN UNCOMPLICATED CASES.

An obese diabetic without complications has no right to insulin therapy. Undernutrition frequently turns an apparently severe diabetes in an obese patient into a mild one. Loss of weight is often equivalent to gain of tolerance. Insulin is indicated in the adult diabetic patient who is rapidly losing weight and strength, who is suffering from the classical symptoms of diabetes, and who is not controlled speedily by proper diet. The same reasoning applies to juvenile patients who are unable to tolerate a diet compatible with growth and a normal participation in childhood activities. Insulin treatment should not be begun unless adequate laboratory control is accessible, except, of course, in an emergency.

The factors in the dosage requirement are: (1) severity of the diabetes; (2) the total caloric value of the diet (as well as the carbohydrate content); (3) the body weight; (4) glycosuria; (5) hyperglycemia or hypoglycemia.

There is no standard insulin dose. Frequently patients are begun on a 10 unit dose, once a day. There is nothing absolute about the amount of the dose, but each patient is a

law unto himself and lower or higher initial doses than the one mentioned are not unusual. The dosage is gradually increased or decreased according to variations in the above factors. When the insulin requirement reaches 26 units it is generally divided in two and administered twice daily, as each unit over 26 in a single injection seems to lose in effectiveness. Almost without exception with 2 or more daily injections, the insulin requirement is less than if a single dose is given. If necessary 3 doses are given daily. *Every sample of urine of an insulin patient should be tested.* If there is glycosuria, the insulin should be raised for the dose on the following day corresponding in time to the dose before the appearance of sugar in the urine. If 3 doses are required, an even distribution of the dosage throughout the 3 administrations is aimed at, but frequently the morning dose is larger and out of proportion to the others. Noonday glycosuria may sometimes be abolished by increasing the evening dose, thus giving the morning dose less sugar to handle and permitting it to assist more in the utilization of the metabolic processes of breakfast and the forenoon. Constant readjustment is the only method of determining the patient's insulin requirement. Occasionally it is necessary to give 4 doses of insulin (including a midnight or bedtime dose) to patients that are very difficult to balance. The effect of a single injection of insulin persists for about 6 hours, so that 4 doses would appear as the ideal method, but they are not frequently necessary in the proper control of the patient.

Giving of the day's requirement of insulin in 1 dose has been advocated, even if large doses are required, and following it with a meal that contains the major portion of the carbohydrate allowance for the day. We have not found this practical, but prefer to have the patient eat 3 equal meals. Administration of insulin twice or 3 times a day in patients requiring large doses seems desirable and the institution of a midnight or bedtime dose is essential in some cases for while the patient is not eating at night, metabolism is still going on.

There is nothing sacred about the timing of the insulin dosage. The classical time is



half an hour before meals, but in certain patients it is necessary to have an early and late program (6:30 or 7:00 a. m. and 8:00 or 9:00 p. m.) in order to overcome morning hyperglycemia with hypoglycemia attacks throughout the day.

"It is not a question", to quote Duncan, "as to how little insulin a patient can use, but rather, how much he can tolerate". When a bone is fractured we splint it to promote healing. Our treatment of diabetes should be directed at splinting the pancreas—and we should institute a rigid diet and generous insulin allowances to prevent any functional overstrain and encourage all possible regeneration of the islands. As the pancreas begins to pick up the load again and gains in efficiency, hypoglycemia reactions will appear as evidence. Lessening of the dose after each reaction will act as passive motion does in the restoration of function in the broken arm.

The only indication for cutting the insulin dosage, after an accurate insulin-diet balance has been established, is a hypoglycemia attack. The succeeding dose may be given as usual, unless the attack has been very severe, as the meal following will take care of this insulin. The cut in the insulin dose should be made in the dose on the following day corresponding in time to the dose before the hypoglycemia attack. The cut may be 2, 4 or 8 units, according to the severity of the reaction.

Often 2 weeks or more are necessary to establish a diet-insulin balance on which it is safe to entrust the patient to home treatment. Generally, it is safer to allow a patient at least 1 hypoglycemic attack (insulin reaction) before he attempts to go home or return to business. He then knows the premonitory symptoms and can institute combative measures. Some clinicians allow glycosuria in insulin patients, but this seems unnecessary and harmful when we have such simple laboratory controls at our command. We should certainly direct treatment to (1) keeping the patient symptom free, (2) with a constant optimum weight, (3) with no glycosuria, and (4) with a normal plasma sugar content.

Patients should not be allowed to attempt home treatment for a period longer than 2

weeks without their first follow-up examination, at which time their plasma sugar, together with the reports of their daily urinary tests, will testify to the efficacy of the home treatment. The length of time between subsequent check-ups depends on the ability of the individual patient to manage his case, and varies from 2 weeks to a year.

#### INSULIN IN COMPLICATED CASES.

Acidosis. The diagnosis of diabetes is not infrequently made with the onset of acidosis. Nausea, vomiting, headache, and general malaise, which tax the diagnostic acuity of the family doctor, often herald an unsuspected diabetes. Coma is seldom seen at present, but in the insulin patient, coma often comes hard on the heels of glycosuria. The treatment of acidosis and coma is practically the same.

When in addition to the clinical symptoms and signs, there is a positive Rothera-Wisheart test for plasma acetone or the more complicated determination of the plasma carbon dioxide reveals a lowered alkaline reserve, heroic treatment is indicated; 50 units of insulin subcutaneously, with 40 gm. of glucose by mouth may be given if the patient is conscious, or by vein if comatose. This may be repeated in 1 hour if the clinical condition has not sufficiently improved and from then on the treatment is guided entirely by the blood and urinary findings. Anywhere from 100 to 400 units of insulin may be required in the first 24 hours and should be accompanied by a diet entirely of carbohydrate. The requirement in the second 24 hours may be notably less (50—100 units) and the diet may consist of protein and carbohydrate. By the third day the dosage may be within common limits and the diet may contain small amounts of fat. The insulin should be kept up for a week or ten days even in the obese patients, lest there be a return of acidosis. Not infrequently some patients require the administration of 5 gm. of sodium bicarbonate 4 times throughout the first 24 hours. Rather frequently, patients that require such strenuous treatment eventually prove to have a mild diabetes readily controlled by diet alone.

Pneumonia. The presence of any infection, such as cystitis, carbuncles, rhinitis or

tonsillitis raises the insulin requirement, but the treatment of pneumonia seems to warrant a few specific words. This condition calls for very accurate laboratory control of the diabetes. Hyperglycemia on the one hand is detrimental to recovery, while on the other hand 1 shocking hypoglycemic attack may suffice to end the efforts of an already faltering heart. Strict vigilance is the price of success.

In any conditions associated with vomiting or loss of appetite it is essential that the insulin be kept up and the patient given at least the carbohydrate portion of his meal by some means. Discontinuance of the insulin by the patient because he is not eating or is feeling below par, has precipitated many cases of acidosis.

#### INSULIN IN SURGERY.

The surgery of the diabetic is today on a very high plane and operations of election, as well as emergencies, are done quite frequently and successfully through coöperation between the surgeon and the internist.

Gangrene is a less frequent occurrence since the starting of insulin therapy. A rising blood sugar, with failure of the established insulin dosage to control it, is the earliest indication of a spreading gangrene. If gangrene is only superficial and small, a good prognosis can be given without operation. Rarely, large deep ulcerated areas will heal under insulin dosage. However, gangrene advancing up the dorsum of the foot generally calls for amputation above the knee. Too much reliance on mystic healing powers of insulin has created harmful conservatism in surgeon and internist alike, with regard to gangrene. Patients, who recovered by operations from diabetic gangrene before insulin, are now sometimes lost through waiting too long for an insulin wrought miracle.

Hypoglycemic attacks vary in their severity from a slight weakness with excessive hunger to tremors, profuse sweating, diplopia, unconsciousness and convulsions. Convulsions are rare except in an occasional juvenile patient. One argument advanced by the proponents of allowing glycosuria in insulin patients was the fear of a nocturnal hypoglycemic attack and death of the patient therefrom. Such attacks,

when they do occur, cause the patient to become restless and awaken him so that he arouses his bedfellow, room mate or family, rather than causing him to lapse into coma and subsequent death from his sleep. One child (No. 3, Physiatrie Institution series) had these nocturnal attacks which his mother was sure were epilepsy. His father, who had been the child's dietitian for 8 years, said it was the first case of epilepsy he had ever heard of that was cured by orange juice. He cut the evening dose of insulin by 4 units and the attacks of "epilpsy" ceased.

The treatment of a hypoglycemic reaction depends on the severity of the attack. Oftentimes the patient becomes a trifle weak or notices that the print of the paper he is reading becomes blurred. Rest in bed generally suffices for this reaction. Still more severe cases respond readily to a little glucose in the form of pure dextrose or the carbohydrate portion of the next meal, if it is ready. Severe reactions will sometimes respond to glucose introduced into the stomach by means of feeding tube and not infrequently call for intravenous injection of glucose. Glucose is now purchasable in ampoules containing 10 gm. in 50% solution ready for injection. A sterile solution of 5 to 50% of glucose may be used. Even the sterility is not necessary in an emergency, for, according to Allen, a clean filtered solution is sufficient. Adrenalin subcutaneously has been advocated by some. Its only use is in diabetes with large stores of glycogen in the liver. Administration of the drug then causes a flooding of the blood stream with these stores. Such severe reactions can generally be traced (assuming previous minor reactions have not been disregarded) to errors in the diet or to the insulin dosage.

Patients frequently object to the taking of insulin on the ground that it is "dope"—probably the result of advertising by various cults—and the fear of forming the "habit". A simple explanation of the nature of diabetes and insulin generally overrules the objection. Another objection is to the pain of the needle, but this is overcome after a few injections with a fine sharp needle of the more concentrated preparations now available. Children,



once "needle broken" will frequently prefer to give it to themselves, as they can do it even less painfully than their elders. Frequently, pain is caused by the tricresol if the injection is too deep. Only 1 patient in the Physiatrie Institute series experienced any local reaction. He is the only patient in that series taking a large single dose of insulin (90 units). This is done to avoid the distressing local annoyance 2 or 3 times daily.

Fear was originally expressed by physicians that the diabetic would acquire a tolerance for insulin, as does the morphin habitue for that drug, requiring ascending doses from month to month to control his diabetes. Such is not the case. Of 64 selected cases of faithful patients discharged from the Physiatrie Institute in the year (1924-25) Duncan has reported a lessening of the insulin treatment in 39; 17 were on the same dosage as at discharge; 8 required an increase. Of the 8, 4 were on high fat diet, 1 admitted breaking diet, 2 had gained weight, and one was allowed a large increase in total calories. From this survey it seems definite that long continuance on high fat diets, which at first seem to spare insulin, manifest their well-known retarded effect by increasing the insulin requirement, as pointed out by Duncan.

Patients who are to pursue their treatment at home should be thoroughly instructed in their diet and the aseptic administration of their insulin. They should be taught to test their urine twice daily for sugar, to increase their insulin dosage if glycosuria appears and to decrease it for an hypoglycemic attack. They should know their insulin dosage in units rather than in tenths of cubic centimeters alone; then if for any reason they are forced to use U49 when they have been using U20, they can make their proper adjustment. They should have a thorough knowledge of the disease and the treatment so that, while they are not kept in constant fear, they will still have a sufficiently wholesome regard for both and will religiously adhere to both proper diet and insulin therapy. They should know that, if for any reason their insulin supply is temporarily cut off, they should halve their diet until the insulin is obtained.

Diabetics, thoroughly conversant or other-

wise with the disease, ask many questions. Many wish to know if insulin will cure the degenerative conditions occurring in diabetes, such as cataract, retinitis, iritis and arteriosclerosis or cord lesions. It certainly will not, but it will almost as certainly arrest the progressiveness of certain of these conditions.

Joslin has coined a very appropriate term in "insulin stilt", inferring that the patient using insulin is naturally less stable than one not using it, but not meaning that it is to be withheld from any patient because of the possible attendant dangers. The insulin patient must be assisted in using his stilts by proper medical supervision. There is no known ratio between a unit of insulin and the amount of carbohydrate that it will metabolize. In the use of insulin cognizance must be taken of the fact that older persons are more stable and less likely to show rapid changes in their insulin necessities than juveniles. Children gain and lose tolerance rapidly and are affected by slight occurrences, so that they have to be carefully checked as to their insulin requirement more frequently than adults.

Insulin gives a patient an artificial tolerance. This does not mean that a patient, rich or poor, should buy insulin to permit him to satisfy his greed. However, it might be well to cite here the case of 1 man who worked in a lumber camp and ate at the regular camp "mess". He then guessed at his insulin requirement according to what he thought he had eaten. Frequently he overestimated his need and "had fits" which frightened his fellow workers, during one of which he was unconscious all night. Strange to say he never suffered any ill effects. Patients have been known to take a few extra units of insulin after attending a banquet. Such practices are dangerous and not to be countenanced by the supervising physician.

Much has been accomplished with insulin. Much more remains to be accomplished, especially in the reduction of the death rate from diabetes mellitus. The hypodermic needle and insulin syringe must not be taken as a license for the gorging of diabetics, but rather as a passport to a long and happy life for them.



## EFFICIENCY AND KEEPING FIT IN GENERAL PRACTICE.

ROSCIUS I. DOWNS, M.D.,  
Riverside, New Jersey.

It has indeed been a pleasure and an honor to me to be the President of Burlington County Medical Society this year. I am very appreciative. I have enjoyed the friendly associations and deliberations of these meetings and have received benefit from them.

As a subject for this Presidential Address, I have taken a topic very seldom mentioned but so important that each of us has considered it individually to a greater or lesser extent.

We have always been told that the life of a doctor has been shorter than ordinary, due to the stress and strain of the occupation. I can remember my father, a very able and conscientious physician, always at work, day and night, with rarely a very short vacation, and dying at the age of 46 years from so-called over work. In my first years of practice, when I seemed always occupied and never finished, I remember a much older physician whose opinion and methods I respected much, who appeared to accomplish twice as much as I did and yet always seemed to have plenty of time to spare. The answer to that situation is the subject of this paper.

We are told that the secret of power is 10% what we do and 90% how we do it. The greatest force in the world is habit. We can develop good habits as easily as bad habits. Success is the habit of doing everything right from the start. The underlying principles of success are the same in one occupation as another. Let us consider and utilize successful methods from the business world under the following headings: (1) Start the day right. (2) Standardization. (3) System of daily work. (4) Modern rules of business practice. (5) Health.

### START THE DAY RIGHT.

The inefficient doctor is late to bed. He oversleeps or habitually rises late. He

awakes slowly or reluctantly. His toilet articles and clothing are never in their proper place. He makes many useless motions in his toilet. He eats a big breakfast rapidly; is late for office hours. His work accumulates. He has no time to plan the work for the day and starts out late with no definite end in view. He is irregular with his meals, never completes his work and is always busy doing nonessentials. He does everything wrong from the time he arises until he starts work, and naturally the events of the day continue wrong.

We are told that the brain is clearest and strongest early in the day, that 1 hour before 10 a. m. is worth 2 hours after; that we should wind up the brain in the early morning and let it run full tilt, and that the secret of advancement is to get a powerful grip on both brain and body before 8 a. m. All successful men have acquired an early morning schedule and adhere to it. This saves  $\frac{1}{2}$  to 1 hour for planning the day's work. It puts and keeps one in working trim and is an example for the rest of the day. The items of the schedule may be as follows: (a) Awake and water, (b) exercise, (c) toilet and dress, (d) study period, (e) twenty bite breakfast, (f) absolute rest.

(a) A good waking time is 6:30 a. m., as it insures quiet and freedom from interruption. One or 2 glasses of water, of course, is a good cleanser.

(b) Exercise for 5 to 15 minutes prepares the body and brain for the day.

(c) Toilet and dress. Group all articles of toilet in place. Organize the dressing equipment. Analyze each motion and find the quickest and most natural movement for each operation and dress that way every morning.

(d) Study period. The main reason for promotion is the daily habit of thinking, learning and planning both the day's work and future work.

(e) It has been proved that breakfast should be the lightest meal of the day. The less one eats, the more and better work will be accomplished before noon. A simple plan is to take 20 minutes for a 20 bite breakfast.

This may consist of fresh or stewed fruit, or a slice of toast, a soft boiled egg with a hot drink.

(f) Absolute rest aids digestion and produces increased working power.

A sample schedule:

- 6:30 a.m.—Up and water.
- 6:35 to 6:45 a.m.—Exercise.
- 6:45 to 7 a.m.—Toilet and dress.
- 7 to 7:30 a. m.—Study period.
- 7:30 to 7:50 a. m.—Breakfast.
- 7:50 to 8 a. m.—Rest.
- 8 a. m.—Start office hours.

Make all actions muscular and mental, not nervous and emotional. The morning moves the day. Get a grip on the morning and the day takes care of itself.

#### STANDARDIZATION.

A man becomes great by doing great work. The secret of doing great work is in learning to become your own efficiency engineer. The leaders of today are their own efficiency engineers. During the strain of the war, the late President Wilson appeared heavier, heartier, stronger and in better spirits than in the previous time of peace. His explanation is said to have been given as from 5 main sources of power: (1) System. (2) Diet. (3) Exercise. (4) Sleep. (5) Relaxation.

(1) System. His every task and appointment of each day was scheduled in advance and followed precisely to the minute.

(2) Diet. He held himself down to the quantity, quality and variety of food that science and experience proved proper for his particular need.

(3) Exercise. He made outdoor activity a part of his daily routine. The harder the mental strain, the more strength he would take from the fresh country air.

(4) Sleep. He took all the sleep that his nature and work required, forgetting that he was President while asleep.

(5) Relaxation. He found the habit of stopping occasionally even in the midst of pressing matters and forgetting the present, through good jokes, a fascinating story, etc.

The above example is the experience of 95% of leaders of industries and professions.

An efficiency standard is a measure of performance, method of operation, quality and quantity of material or output, shown by science to be correct and by experience to be satisfactory. Everything we do is run through a standardization process. There is nothing more essential to personal progress than the standardization of a man's work and life habits, to produce maximum results at a minimum expenditure of time and strength.

#### SYSTEM OF DAILY WORK.

The following principles should well be considered in planning our daily routine:

(1) Concentration. All mental or manual work requiring great skill or close application should be arranged for the morning; the least important work for the afternoon. Don't fritter away the morning hours on petty details.

(2) Rotation of work. Prevent fatigue by limiting the period of concentration work to 1 hour if possible. This follows the principle that fatigue is confined to local areas of the body or brain and is cured by the substitution of another activity demanding the exercise of muscles and nerves distant from those fatigued.

(3) Delegation. Delegate minor duties to others where possible.

(4) Substitution. Substitute machine for man power when possible.

(5) Separation. Everything we have to do should be a separate job, with a schedule time, a complete concentration of its own.

(6) Completion. Finish one duty before taking up the next.

(7) Elimination. Gradually acquire the power to become crisp, clear and brief in language, motion and emotion. Especially scrutinize the work that takes the longest and is done the oftenest, to prevent lost motion. A general rule is: Words that are repeated should be removed.

(8) Authorization. Be certain that our results and methods are the best possible by comparing them with authorities, name-

ly: by attending clinics and medical society meetings and reading standard medical journals and books.

(9) Conviction. The man who does big work in a big way is the man who knows he is right.

(10) Registration and Computation. By recording and timing each duty, much waste time and motion is discovered. With the idea of performing the day's work in 20% less time, we find usually our each action or motion of repetition can be shortened or omitted.

A few modern rules of business practice:

(1) Put first things first in the daily schedule and leave the schedule variable to make this possible. Do not let the mass of nonessential things side track one while the essentials are neglected or postponed.

(2) Know the cost of doing business to a penny. Don't run the financial end on guess work.

(3) Know the reason for every failure and provide against a repetition of it.

(4) Make your work surroundings attractive and effective.

(5) Don't talk about your work to anybody except a confidential adviser.

(6) Guard against the commercial folly of jealousy, pride and egotism.

(7) Take the public into your confidence. Do not remain secretive about your endeavor to satisfy your patron.

(8) Make sure that every customer, patron or client is your friend. Make a specialty of courtesy.

(9) Find a way to reach the home of every customer.

(10) Adopt a slogan, and make everybody who should know about your work familiar with your slogan.

(11) Run your business not on precedent but on principle.

(12) Put your business on a cash basis or as nearly so as possible.

(13) Watch out for local, national or international opportunities for extending your work.

(14) Plan your work ahead for at least 5 years.

(15) Remember that to earn more you must learn more.

(16) Draw up a set of your own work rules for your daily personal guidance.

(17) Learn how to relax completely and in your spare time forget your work entirely. The law of concentration demands perfect relaxation once or twice a week.

(18) Regard every business problem as a concealed opportunity.

(19) Make a systematic study of seeking out new connections and opportunities for benefiting your work.

(20) Remember that the power back of all great work is feeling.

(21) Get a final ambition larger than money-making.

(22) Let competition hasten you and opposition strengthen you.

(23) Be an optimist about your work no matter what comes.

#### HEALTH.

We know that few Americans die a natural death. We know that we will live longer by following the general rules of health. It is certainly nonsense to attempt to use efficient methods without good health. Therefore, we should follow our own directions. A general periodic physical and dental examination comes first. Remove all possible foci of infection, mainly from the teeth and tonsils. Watch your weight and keep near, or a few pounds under, the normal weight. Guard against the diseases of middle life, i.e., chronic heart and kidney conditions, high blood pressure, etc.

Watch the diet requirements. Follow mainly the balanced menu system by using proper proportions of the 5 main food elements—proteins, carbohydrates, fats, mineral salts, and roughage. Use more natural foods, like cereals, nuts, fruits, vegetables, salads, dairy products. Cut down on meat and potatoes. Avoid excess of tea, coffee, spices, condiments, greasy and rich foods and pastries. Chew food until it becomes liquid and swallows of itself. Do not over-eat or eat between meals. Relax after meals.

Utilize the advantages of air. Have chest expansion of 2½ inches. Hold head and



chest high. Breathe regularly and deeply. Walk sufficiently. Sleep in perfectly ventilated room. Wear loose, light, porous clothing, low and comfortable collars, light and soft hat, sensible shoes, loose linen and cotton underwear.

Make use of the advantages of light. Use the scientific lighting systems. Keep bedroom and study properly shaded. Keep the sleeping room absolutely dark, preferably with eastern exposure. Use sun parlors and sun baths.

Study the art of relaxation. Exercise is necessary to counteract the taxed brain, to improve the quantity and quality of mental production. Play is to the mind what exercise is to the body. Have a hobby and use it whenever possible, and when business becomes too strenuous. Play with enthusiasm at some game you enjoy and retain a boyish love for good clean sport. Run off once a week to play and get completely away from the work for a day or two every month or so.

If we speed too fast we break down too soon. We depend mainly on sleep and the art of resting by day to prevent needless hurry and to restore our energies and nervous emotions. Strive to receive 8 or 9 hours restful sleep endeavoring to retire usually at 10 to 10:30 p. m. Also include a period of complete relaxation during the day and whenever possible. Detach yourself from all outer sensations. Do not move, talk, think, see or hear. A few minutes of perfect relaxation will rest one as much as an hour's sleep. Learn to relax completely on Sunday. Forget a schedule. Do everything wrong, except go to church. The best form of relaxation is religion.

We need to keep a clean body and mind. The bowels must be moved daily. We need a cool bath daily, and a hot bath twice a week. Prevent infection from outside sources—the barber shop, laundry, the common towel and drinking cup, public toilets, public swimming pool. Keep a right mental attitude. Be calm and an optimist rather than fearful of worries and discouragements. Avoid over and rapid eating, shal-

low breathing, bad posture, wrong clothing, impure water, hurry, anxiety, stimulants and drugs.

As a result of attention to our own health, we will improve our work, have increased our brain power, be better prepared to keep our patients in trim, have more confidence and resourcefulness, prevent periods of illness, and postpone the infirmities of age.

With the foregoing principles in mind, the following schedule may be an example for the daily routine:

8-9 a. m.—Office hour.

9 a. m.-12m.—Outside work.

12:15-12:45 p. m.—Lunch.

12:45-12:55 p. m.—Relaxation.

1-2 p. m.—Office hour.

2-5:20 p. m.—Afternoon program.

5:30-6 p. m.—Dinner.

6-7 p. m.—Period for rest or to be with the family, or to attend emergency calls before the evening hours.

7-8 p. m.—Evening office hour.

10 p. m.—Retire.

Collateral reading in the evening when possible.

Stop the schedule Wednesday afternoon, Sundays and holidays.

Plan to make up loss of a night's rest the following afternoon.

Be prompt, especially for meals.

Play at a hobby whenever the opportunity permits.

#### CONCLUSION.

Methods similar to the above are necessary to place us in a position to control our jobs rather than have our jobs control us.

We owe to ourselves the present day advantages of pleasure and education.

We owe to our families the right to remain intact and have all the advantages of the present day. What is more pitiful than the death of a father to a growing family, the changing of their lives, denying them the benefits that they have a right to expect.

We owe to our patients the benefit of future years of thoughtful experiences. We should live for them, not die for them.

## In Memoriam

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CRAWFORD, David Hutchison, of 26 Elizabeth Avenue, died November 15, at his home, after an illness of 3 months.

Dr. Crawford was born in Newark and after graduation from Jefferson Medical College, Philadelphia, in 1901, began practice in his native city. He served during the World War as a member of the Medical Officers' Reserve Corps in charge of the Remount Depot, Chillicothe, O., with the rank of Captain.

Dr. Crawford had been associated with the Board of Education clinic of the Newark public schools more than 5 years. He was a member of the Essex County Medical Society, the Academy of Medicine of Northern New Jersey, the New Jersey State Medical Society and the American Medical Association. He belonged to Kane Lodge, F. and A. M.; Salaam Temple of Newark and Adoniram, Grand Lodge of Perfection, Indianapolis, Indiana.

Besides his wife, Dr. Crawford leaves 2 sisters, Mrs. Edmond L. Ross and Mrs. Austin Thompson.

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DAVIS, Henry V., died at his home, North Branch, Somerset County, New Jersey, November 26, 1926, after a prolonged illness. Dr. Davis was born in White House, New Jersey, December 9, 1857. He attended the country public schools and a private academy in Somerville, and after teaching in the rural schools for a few years, undertook the study of medicine and was graduated from the College of Physicians and Surgeons, Baltimore, in 1894. He opened an office at North Branch where he continued in practice until his death. As a country physician, he had a large territory to cover and though physically impaired at times, he attended to his work conscientiously. Dr. Davis was married October 18, 1894, to Carrie Rineheart, who died 3 years ago. Two unmarried daughters survive them. Dr. Davis was a member of the County and State Medical Societies, the American Medical Association, and the Junior Order of United American Mechanics. He had served for many years on the Board of Health of Branchburg and Bridgewater Townships, and was also inspector of schools of Branchburg Township.

The following resolutions were adopted by the Somerset County Medical Society:

Whereas, Providence has removed from the membership of the Somerset County Medical Society our co-worker, Dr. Henry V. Davis; and

Whereas, because of his faithful and conscientious following of the duties of his chosen profession, and because of his active participation for many years in the work of this Society, and because of his Christian character and loyalty to his fellow practitioners; therefore be it

Resolved, That we, the members of the Somerset County Medical Society, express our sorrow over the loss of a faithful member and an upright citizen in the community, and be it further

Resolved, That these resolutions be sent to the bereaved family, be published in the local press and in the State Medical Journal, and be spread upon the minutes of this Society.

Respectfully submitted,

(Signed) LANCELOT ELY,

A. L. STILLWELL,

*Committee.*

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if,—

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

## NEW YEAR'S GREETING

from

*The President of the Medical Society of  
New Jersey.*

A new year opens! The time for making good resolutions is here! What new ones shall we adopt this season?

As the official head of this Society, may I suggest consideration of the question—In what way may we, as medical men, work most effectively toward the betterment of our organization, county, state and nation?

As a generalized answer to that question, I desire to make a plea for the strengthening and improvement of the County Medical Societies, for, only in this way can the State Medical Society grow in numbers and influence. This objective, I think, may be obtained: (1) By a determined effort to enroll every regular medical man of the county in the local society. (2) By every member resolving to attend every meeting, if possible, and to take part in the discussions and deliberations. (3) By having the scientific part of the majority of the meetings conducted by the members themselves, rather than by "imported talent". The preparation of a paper is instructive and developing to the writer, and the discussion, if free, should be of value to the audience. (4) By the exhibition of cases. (5) By closing, where possible, with "eats". A zealous program committee is necessary to make meetings such a success that nobody feels he can afford to be absent.

That the New Year may bring great hap-

piness and success to his fellow practitioners in the state is the sincere wish of your President.

JAMES S. GREEN.

## HEALTH STOCK-TAKING.

With the advent of a New Year it is customary in the business world to take an account of stock; to ascertain whether the business is in a healthy condition. Such a detailed periodic investigation enables one to classify the goods on hand—to discover the existence of any "junk", to repair articles that have suffered deterioration, to replace exhausted supplies and bring the whole stock in trade back to a normal balance. A similar stock-taking with relation to one's health is the basis of Periodic Health Examinations and the commencement of a new calendar year is a good time to institute such a proceeding if you have not already established the principle in connection with some other fixed date, like your birthday. The primary purpose of the examination is to ascertain whether one is in perfect condition, whether any portion of the body has become impaired and requires to be cast off or repaired, and if any reinvigorating processes are necessary to maintain a working efficiency for the coming year. This is an important annual proceeding for everybody, but an especially important one for those of us who are in the vicinity of that mysterious period known as "middle life".

It is at this time of life that one may



distinctly "feel himself slipping", as Dr. Lewellys F. Barker expressed it in an address last year at the Portland (Oregon) University Club. He was speaking to a mixed audience of professional and lay people, but the suggestions offered have an import for physicians in that they are personally applicable and constitute a reasonable guide for use in connection with the health examination of a large percentage of our clientele.

We quote an editorial report of his remarks from Northwest Medicine:

"The speaker asked no one to go to extreme in managing the lives of middle-aged men and women. He pointed out the harm that is being done by the overactive lives which many Americans lead. He advocated moderation in work and half humorously quoted someone else to the effect that after middle life men ought not to work over 9 months a year, tempering this with his own suggestion that, whether or not one could manage his affairs so as to rest one-fourth of the time, it was advisable to have several vacations each year, preferably a long one in the summer, and shorter ones about Thanksgiving and Christmas, or other holiday seasons. As a daily program he advocated abundance of rest with moderate exercise, a reasonable amount of work, and great temperateness in such matters as diet, smoking and the use of alcohol. There may have been some present who did not agree with him on the use of alcohol and tobacco and who would have preferred him to have advised complete abstinence from these substances. But Dr. Barker was not preaching asceticism but moderation. He evidently possesses one of those natures, to which gloom, introspection, self-analysis and the practice of puritanic restraint are repugnant. In the matter of diet his advice was much like that in regard to the use of alcohol and tobacco, that is, he urged moderation, with gradual lessening of protein intake and increasing attention to the purely hygienic phases of life. Throughout the address the speaker showed keen understanding of psychology not only of middle age but of all ages. In short, he gave

to a hundred or more laymen advice, for which as individuals he would doubtless have assessed them several thousand dollars and for which they would have had full value received.

With increasing years men find themselves more and more willing to yield a point, less likely to hurl themselves against immovable objects, less dominated by stubborn and unreasonable resistance to the inevitable order of things. With age come dietetic, physical, intellectual and even spiritual limitations, accompanied by tolerance, increasing willingness to bow to necessities, and cessation of the tendency to kick against the pricks. But even with advancing years most people are more easily led than driven, and that particular form of compulsion against established habits which is urged by extremists continues to be offensive. Men who will not listen to a doctrine which demands that they shall give up all the things they like but that are not good for them, will readily yield to one which demands moderation in such matters, and little by little will find themselves increasingly willing to cut out objectionable practices, until they come to complete submission to that which after all is in many cases unescapable. Education is infinitely better than legislation; calm reason and logic better than arbitrary command. There is a growing interest in the hygiene of middle life and it is a good sign of intellectual evolution that men of vigor and prestige shall from time to time discuss such problems with laymen in wholesome, understandable, nontechnical language."

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### SAFE-GUARDING YOUR OWN HEALTH.

The advocacy of Periodic Health Examinations for everybody—a campaign that has been under way now for sometime and which is steadily gaining impetus—has brought forth some interesting developments. One of the most important points now attracting attention was strongly emphasized in the after-dinner speeches at a banquet recently held by the Bellevue Hospital Alumni Association of

which one of our esteemed members, Dr John F. Hagerty, is president. The point referred to is that physicians should promptly avail themselves of the benefits of this health preserving plan.

Many of our readers are familiar with the report of the King's County (Brooklyn) Medical Society's examination of its members, and some doubtless know of the provisions made by the Philadelphia County Medical Society for examination of as many of its members as will present themselves. These are, however, but evidences of sporadic interest in the problem and observation leads us to the conclusion that but a very small percentage of medical practitioners have so far accepted the Health Examination plan with sufficient enthusiasm to submit themselves to its test and take advantage of its possible benefits. If we believe in this thing, and surely no one can seriously question its great value in the preservation of health and prolongation of life, then we should be most anxious to secure its benefit to ourselves at the earliest opportunity. Self preservation is the first law of nature; for physicians no less than for other individuals. Unfortunately, *procrastination* is a trait as prevalent among physicians as among other special classes. For your own selfish interest, and for the sake of your family or those dependent upon you, it is wise that you should seek at once to find out whether you are as good a man physically as you believe yourself to be.

Another most excellent reason for personal participation in the Periodic Health Examination campaign is found in the effect it will have in carrying the campaign toward a successful conclusion. How can we expect the lay public to accept the proffered advice if we do not make personal application of the plan and see that its benefits are conferred upon our own families? Would it not be well for each one of us to realize that he owes it to himself, to his family, to his profession and to the public to have an immediate health examination and to adopt the practice of having such an examination repeated periodically. By setting an example, personally and through application to members of the family, we can do more to aid this great feature of preventive medicine than by any number of resolutions adopted at the

society meetings or any amount of advice disseminated to the public.

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## DEFENSE AND INDEMNITY INSURANCE EXTENDED TO RADIO-THERAPISTS.

As many of our members are aware, the provisions made by the State Society for medical defense and indemnity insurance have not satisfactorily covered that group which happens to work with Roentgen rays or radium. The insurance companies have looked upon such workers as extra hazardous risks and refused to grant them protection on the same terms offered to physicians and surgeons in general. The committee which negotiated the original contract, and which has succeeded in securing from time to time additional improvements therein, has continued to work upon the problem and is now able to report a measure of relief to those who were deprived of the full benefit of the old insurance policies. Dr. Beling, chairman of that committee, has just supplied us with the following important communication for transmission to our members:

"Up to October 10, 1925, the New Jersey State Medical Society enjoyed full coverage at a flat rate under the group contract offered to members.

During the year 1924, a general survey of the experience enjoyed by various companies writing this particular class of insurance brought forth the necessity of making certain changes in the rates. The changes were uniform in so far as they applied to all companies writing professional liability, as they were forced to recognize a vast difference in the hazards covered. The difference of coverage between the old agreement and the new affected only those who use x-rays for other than diagnostic purposes, or who give radium treatment. An increased rate was charged to the roentgenologist and coverage was accepted, but the companies refused to recognize any coverage for those giving radium treatments. This situation brought about

certain inquiries, as well as criticisms, which resulted in an arrangement being made whereby a committee could visit the Home Office of the carrying company at Baltimore, and appeal to their medical director, as well as their underwriter, for further consideration under the present policy, in so far as it affected members coming under either of the 2 above referred to classifications.

The company granted the interview and at its conclusion offered to extend their contract so as to cover *all members*, provided that the State Society would agree to assist them with regard to the acceptance of such members as might be proposed for x-ray and radium coverage. The plan suggested by the company is set forth in the following letter:

United States Fidelity and Guaranty  
Company

Baltimore, Maryland.

November 4, 1926.

Dr. C. C. Beling,  
111 Clinton Ave.,  
Newark, N. J.

Re: N. J. State Medical Society.

Dear Dr. Beling:

The following is my understanding of the decision reached yesterday in our conference with you and Dr. Ill, concerning the professional requirements for x-ray and radium coverage. Kindly advise whether or not this is in accordance with your understanding.

X-ray Therapists (superficial or deep) will be accepted under the State group policy:

(a) If a member of a recognized roentgenological society.

(b) If, after an investigation by a committee of not less than 3 members of the State Medical Society, one of whom shall be a member of a recognized roentgenological society, the committee approves and endorses such x-ray therapists as skillful, competent and ethical practitioners in their specialty.

Radium Therapists will be accepted under the State group policy:

(a) If members of American Radium Society,

(b) If, after an investigation by a com-

mittee of not less than 3 members of the State Medical Society, one of whom shall be a member of the American Radium Society, the committee approves and endorses such radium therapists as skillful, competent and ethical practitioners in their specialty.

The premium to be charged for either x-ray or radium therapists is \$50.00 for \$5000-\$15,000 limits and \$70.00 for \$10,000-\$30,000.

Very truly yours,

(signed) Thomas R. Payne.

In order to comply with this proposal, a meeting was held on November 15, 1926, at the office of Dr. Edgar A. Ill, 1004 Broad Street, Newark, New Jersey, at which the following members of the State Society were present: J. S. Green, President; J. B. Morrison, Secretary; Henry O. Reik, Editor of the Journal; Charles F. Baker, Newark; Philip G. Hood, Newark; G. S. Reitter, East Orange; Edgar A. Ill, Newark; H. J. Perlberg, Jersey City, Ernest A. May, Orange; J. Thompson Stevens, Montclair; Frank Devlin, Newark; Jacob Roemer, Patterson; Alex E. Wensch, Montclair, and S. Oleynick, Newark.

After listening to the report of the committee that visited the Home Office of the Insurance Company in Baltimore, which committee was composed of Dr. Christopher C. Beling and Dr. Edgar A. Ill, the members present agreed to accept the proposal of the company, and Dr. J. S. Green, President of the Society, appointed the following committee to act on applications for coverage so as to comply with the wishes of the Insurance Company: Edgar A. Ill, Chairman; N. J. Sommers, of Trenton; Stephen J. Quinn, of Elizabeth; and Charles F. Baker, of Newark. It is hoped that all members of the State Society who employ x-rays and radium in their professional work will promptly avail themselves of this opportunity to secure protection against malpractice suits.

By following this method the State Society will now be able to secure professional liability coverage for all of its members, regardless of the particular branch they may specialize in."



## Medical Economics

### IF WE STEPPED OUT.

Under the above title, the Medical Pocket Quarterly, a pamphlet advertising the products of the Reed and Carnrick Company, recently published an article attributed to Henry W. Salus, M.D., of Johnstown, Pennsylvania. It contains a sufficient number of pertinent facts and deals with such a variety of economic problems of the general practitioner of medicine as to justify, we believe, our reproduction of it here.

"In a recent prominent medical convention, great stress was laid upon the dearth of regular physicians in rural districts.

The rural dweller is to a great extent to blame for the increasing scarcity of rural physicians. He is one of the most gullible persons in the world.

He buys mail order glasses fitted by a man over 2000 miles away, who requires for diagnostic purposes only the age, height, weight, and \$2.98. He falls for all sorts of mechanical devices, from electric insoles to artificial ear-drums.

The local yokel lives too close to his village doctor to see the good qualities in him, and consults him only in emergency or when all other methods fail. If a diagnosis is to be made at all, he prefers to make it himself, so that he can tell the doctor what to do.

Had the farmers made it more attractive for the country doctor, this same country doctor might have made himself content. It was a hard task for them to drive him off—it will be a harder one to bring him back.

Where the farmer left off, the city dweller is beginning. He is driving the regular physician from pillar to post. He has given a place to the chiropractor, the neuropath, the electro-therapeutist, and to every fakir who can tickle the epidermis. The 'doctor's' shingle is no longer a guarantee that there is a trained man behind it. A diploma seems to be merely a scrap of paper.

The laws that govern our entrance into the field of medicine are iron-bound and full of requirements; we must have character, morals, intelligence, education, premedical training, and funds enough to clothe and feed us for 7 long years—7 years of drudgery, without intermission, without income, of preparation and expense, and of apprenticeship that ends with a beginning.

Are these qualifications demanded of the

pseudoes? Don't be silly! Are the pseudoes required to have a premedical education before becoming qualified students? Apple sauce!

Who has ever investigated the quality of the men and women who have obtained licenses to practice the various cults? Has any census ever been taken as to the number of high school graduates among them, and the number of them that never reached a high school? We should know the quality of the men behind these diplomas, as every one wants to know ours!

Did you ever hear of a 'Veterinary Chiropractor'? Surely not, and you never will—lower animals can not read, and owners of them would not believe in trick cures for sick horses, cows, dogs or cats. If a dog was suffering from distemper, its owner would laugh at the thought of spinal adjustment as a curative measure for that disease.

People who love domestic animals do not trust them to be treated by incompetents, but they think nothing of permitting their children to be treated by them.

It is time for the organized medical profession to take a stand against the invasion of the charlatan.

Let us place all cults on trial. Let an impartial scientific jury decide if they are frauds or not, just as you would place on trial any other alleged offenders. If they have virtues, we want them. If they are pure fakes, throw them out!

Let us suppose that, to prove to the public the worthlessness of quackery, the entire legitimate medical profession abandoned their work!

What would happen if the doctors went on a strike? Can you imagine the destruction and havoc we would create? Epidemics would reign, disease would spread, hospitals would close their doors, research laboratories would be stilled. Billions of dollars would be lost by the cessation of the manufacture of drugs and chemicals, an industry primarily created by us. Training schools for nurses would be no more, vast armies of nurses would be thrown out of employment, public schools and public buildings would be closed, armies and navies would disappear.

Can you imagine deeply enough to picture all that would happen?

Naturally, there is room for great improvement within our own ranks. We have all been so ultra-scientific that we have regarded a little bit of commercialism in our make-ups as being unnecessary and unbe-

coming to the grandest and most noble profession in the world.

If you don't think that we have been lacking in a business sense look at the 'Help Wanted' advertisements in a recent trade magazine.

Live town requires the services of the following:

	Salary per Annum.
City Electrician .....	\$5000
Matron for prison .....	4000
Janitor for school .....	3000
Full time Health Officer (must be a graduate of a Class A Medi- cal School) .....	1800

Here is still another one.—U. S. Civil Service Exams:

Stenographers .....	\$4000
Musicians .....	4000
Postal Clerks .....	3000
Electricians .....	3000
Printers .....	3000
Physicians .....	900

You can see what happens because of our lack of keen business sense. The janitor or stenographer is worth more than the physician.

The thought of it is a nightmare. It is even funny—it is so funny that it is tragic. Rip Van Winkle had a long, long sleep, but he eventually woke up."

## Medical Ethics

John Hammond Bradshaw, M.D., F.A.C.S.

### THE GENERAL PRACTITIONER.

"And when the One Great Scorer  
Comes to write against your name,  
He writes not if you won or lost,  
But how you played the game."

Of all the games of life, that of the physician is the most arduous. If it is not arduous, it is no good. If he is unwilling to work, he had better get out. If he is a loafer, he will be pushed out. Only by his intense love for the craft can he stand the gaff. If he merely makes a potboiler out of his profession and thereby grows fat, the time will come when he will stew in his own juice. If the lamp of science burns for him brightly, he will go far. If the love of man is true, he will not fail. If industry is there, he will arrive. If such concentration of purpose exists that it excludes the frivolities, he will be happy. Now, if he combines within his make-up most or all of these essentials (although he may

not make a "specialist"), *he will be a doctor!* He will have played the game!

The practice of medicine is different from what it was years ago. The gold-headed cane and work for humanity era has passed. Yes, it is inevitable that the commercial, materialistic spirit of the age should creep in and work its wrong. The pace of life is swift; one must keep step. The doctor no longer pulls his own potatoes from his own back yard. Those that provide for his wants are not working for their health. His own ideas grow larger year by year. So do his expenses. The vicious circle begins. It grows. The question is, where will it stop? The pity of it is that one may lose one's chief *raison d'être*. One does not become a doctor just to keep the wolf from the door; there are easier ways.

"It is different with the professional financier who finances for the sake of financing and what he can get out of it in money, without a thought of the welfare of the people."

What is it that makes a man desire to become a specialist? Is it because he has an unusual aptitude? Would there be so many specialists if their special fee was smaller than that usually received by the general practitioner? The necessity for specialists is granted. Special training should give special skill. It is worthy of a special fee. If one concentrates his attention, his study and his work upon a section of the broken body having the boundaries of a tea-cup, should he not know more about the cracks in that tea-cup than the man who must comprehend every crack in every dish in every cupboard? It surely is reasonable.

The trouble is not with the true specialist. The trouble is with the fact that the true general practitioner is getting to be a rare bird. He is aping the plumage of the specialists. He is not satisfied with the emoluments and the living wage of the general practitioner. Are we not all trying to be specialists? A specialist without special training is an especial terror in the land. The fact that as a specialist he can command a bigger fee should have nothing to do with the case. A noted metropolitan surgeon not long since lectured before a society comprised of general practitioners. His lecture was on a purely technical surgical subject. He began his lecture by apologizing for bringing before general practitioners so technical a topic in surgery. But one of the audience quickly interrupted him with the remark "Don't worry, Professor. We are all surgeons." The following narrated case is fortunately rare. A certain doctor in a certain town waxed fat (and rich). He was only a young man. His schooling was not exceptional. His anterooms were always full.



He looked down with supercilious stare on honest, plodding, highly cultivated and educated men. I once asked one of his clientele why she had such extraordinary confidence in one who in my secret heart I lodged with the four-flushing fraternity. She said, "Oh, doctor, he is such a wonder! Do you know, he has studied all the specialties, so that now he says he is a specialist in every domain of medicine!"

Is there anything more to be said? Yes. A word should be said for the "General Practitioner". The world is not ready to let him go. He should work less, think more, study more, travel more, and not refer every difficult case to the specialist. If he does the latter, he will stop his own growth. He it is that is the family counsellor and friend; he knows all about that old ancestor who lived so fast and high that he transmitted to the present generation pains *they* do not deserve to suffer. This knowledge may save his patient thousands of dollars in consultation fees, a big operation, and perhaps may even save his life. The keen effective diagnosis and knife of the specialist may be missed, but in its place we have the gentle, kind, disinterested effort to cure which ninety-nine times out of a hundred is effective. He may not glibly recite to his patient the Latin name and genus of the coccus or bacillus that is located in the receptaculum chyli, or charge him \$20 a visit, but by his years of patient experience and his life of independent thought he will not only give the remedy that will relieve, but often will cure the patient quickly. He will do this in such a modest and unostentatious manner that the patient will say (after he is well) that, "I guess I wasn't much sick, anyway, for Dr. Good told me I had a whale of a constitution".

Moreover, the specialists themselves need the "General Practitioner". The reasons are obvious. The nation, the state, the country, the city, and the little town—all need this man, who, often to his own pecuniary loss, takes up the hammer that drives the nail of preventive medicine, sacrificing his time, perhaps his life, to the public weal. We find him serving on the school board, the council, in the hospital, and in the church.

This is not a diatribe against the specialist; it is only a little plea for the "General Practitioner", for it is he who "plays the game"!

*Note:* It may add some interest to the above subject to say that Her Majesty, Queen Marie of Rumania, kindly looked over this manuscript as it was being written, the author having been a fellow passenger crossing on the Berengaria. Being an author of several most readable books, a thinking woman and a most

excellent talker, the grand-daughter of Queen Victoria and of the Czar Alexander, the writer considered himself fortunate. Her criticism and comments were of value. "Kings", (she said) "are in a peculiar position regarding doctors. Through matters of state, the public voice and the exigencies of policy, they are not always permitted to choose their own physician. Because of intrigues, sometimes petty jealousies and especially in the interest of the public weal, when a King is ill, he is likely to be attended by a plurality of advisers. Naturally those selected are among most prominent and celebrated in their land. This gives the poor King a Council of Specialists. Each may be a master in his own specialty. They are of course men of strong individuality and opinions and do not always agree with their colleagues. This does not always tend to clarify the case, and therefore sometimes the deal a King gets when he is ill is inferior to that accorded his subjects."

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### Special Article.

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#### THE AMERICAN HOSPITAL OF PARIS.

- We have on previous occasions reported some of the unusual things observed in our wanderings during vacation period but doubt if we have heretofore discovered to our readers anything so generally interesting as the result of a chance visit this summer to an American institution now well established in the old world. It should be of interest to every American traveler, and as well to those Americans whose relatives and friends are given to touring Europe, to know that there exists in Paris today a thoroughly modern, perfectly equipped hospital devoted solely to the service of Americans who become ill while on the European continent. Of course, there have always been hospitals all over Europe, open to sick American travelers, but in this instance we have an institution in which the "Attendants" speak English and where the whole guiding spirit centers exclusively around the service of Americans.

The American Hospital of Paris was founded by American residents and doctors to provide a suitable place for the medical treatment of Americans traveling or living in Europe, and is the only permanent hospital on the continent of Europe exclusively for Americans. It was first planned in the year 1904 and was incorporated under French Law in 1906. The site of the original hospital was purchased in 1908 and the hospital was opened to patients in 1910, the



first patient being received on March 30 of that year. It was incorporated by act of Congress in 1913, and at that time had accommodation for 10 patients in private rooms and 10 ward patients, which was subsequently increased, by additions to the original building, to accommodate 22 private room patients and 10 ward patients, that is, a total of 32 patients. As a matter of fact, instead of the 32 patients intended to be its maximum, there were often more than 40, and on occasion, more than 50 patients in the hospital at one time, with others on the waiting list for whom no room was available. It was this condition which had existed for a long time, that made necessary a new and larger building in order to care adequately for Americans in Europe in need of hospital treatment.

The original hospital, small though it was, gained recognition from its earliest days as a model institution of its kind. Through the 15 years of its existence, it was celebrated throughout Europe and was well known to leading physicians in America. It played an important part in the care for Americans in Europe and rendered glorious service during the war by organizing and conducting the American Ambulance Hospital which later, when the United States entered the world conflict, was turned over completely equipped to the United States Army and became American Military Hospital No. 1.

In 1921 ground was purchased adjoining the old building and it was later decided to erect, on this property, a hospital which would serve as a model of its kind in Europe, and ample to accommodate all American patients who might apply. The purpose of those in charge of this larger work has been to provide for Americans an institution equipped with all the latest hospital appliances and served by a staff on the most eminent American and French physicians and surgeons, thereby affording to American patients treatment equal to that which they could obtain in the best hospitals in the larger American cities.

Work upon the new building, which was dedicated as a memorial to the services rendered by the men and women of The American Hospital and the American Ambulance during the war, was begun in May, 1922. The constant growth of the American Hospital of Paris is shown in the following comparative figures. In 1922 the Hospital cared for 1928 patients, the next year, 2128 were cared for, this number reaching 2787 in 1924 and 3430 in 1925. Of these cases about 2/3 were out-patients. The figures

represent only inadequately the demand that was made upon The American Hospital. In its crowded state, many American patients were cared for at hotels or at small nursing homes because of the inability of The American Hospital to receive them. Almost immediately following the opening of the new building on January 30, 1926, more than 60 patients were being cared for although the season when the demand is greatest had not begun.

On January 30 of the present year, exactly 13 years after its incorporation under Act of Congress, The American Hospital received the first patients in the new Memorial Building. This building has accommodation for 120 beds, including 8 private maternity rooms, a maternity ward of 5 beds and a creche. On each floor there are 2 sun parlors for private patients and a separate one for ward patients.

The Hospital contains 3 operating rooms, a complete radiographic and radioscopy installation, a modern laboratory, an eye-department, an ear, nose and throat department, a dental department, complete installation for electrotherapy, radiotherapy, hydrotherapy, special diet kitchens, general consultation rooms, nurses' training school and lecture hall, and all the necessary appurtenances embodying the latest scientific improvements.

One of the features of the new hospital is that all sick rooms are exposed to the sun during a part of the day. They are fitted with steel-frame windows of the American or "guillotine" type, and by a system of mechanical ventilation fresh air at the proper temperature is provided at all times. The building proper is constructed of reinforced concrete and brick with a stone facing, the central portion being 5 stories in height and the 2 wings 4 stories, with a pergola on each which forms a roof garden for convalescent patients.

Quite appropriately, the new hospital was formally dedicated on the birthday of Florence Nightingale, May 12. We cannot better describe the event than to quote the reports published on the following day in the Paris editions of the New York Herald and the Chicago Tribune.

"America's beautiful Memorial Hospital at Neuilly formally came into existence yesterday with one of the most brilliant dedication ceremonies in the history of American institutions in Europe.

Before the President of the French Republic, American Ambassador Myron T. Herrick, Marshal Foch and a vast throng

the great institution was dedicated 'as living memorial, more enduring than monuments in granite or marble' to those who gave their lives in the great cause championed in the last war.

Congratulatory messages poured in, many of them from across the ocean, several thousand dollars in donations were received during the day, and close to 1000 visitors strolled through the beautiful grounds and in and out of the great building which was thrown open for inspection following the ceremonies. A feature of the program was the conferring of diplomas upon 7 pretty young nurses, who received from Ambassador Herrick the testimonials of their years of training.

'Before we begin the regular program, it is appropriate that we should do honor to him who really made this Hospital', declared Ambassador Herrick, Honorary President, who presided in the absence of President A. K. Macomber. In 1903 or 1904 one of the leading men of Paris, Mr. John H. Harjes, of blessed memory, conceived the idea of an American Hospital in Paris, and with a few friends made its beginning, which, through the years, has led up to the Memorial Building which we are dedicating here today. It is, therefore, most fitting that we should open these ceremonies with a tribute to the memory of the man whose initiative and foresight made the dedication possible. I therefore present to the hospital, in the name of the Board of Governors, the bust of Mr. John H. Harjes.'

Considerable enthusiasm was aroused when the Ambassador read a message cabled by President Coolidge for the occasion. It was as follows:

'At the time of the dedication of the new American Hospital building, it gives me pleasure and satisfaction to convey through Ambassador Herrick an expression of my hope and belief that this hospital may fulfil its humanitarian purpose by meeting fully and freely the needs of those who suffer. Even before the United States entered the war, America gave wholeheartedly to the great organization built up to save human life; to the American Ambulance Service which carried so many wounded from the trenches to the zone of safety and to the hospital where they could be nursed back to health and fitted to take once more their part in the work of the nation.

It is appropriate that we should build monuments to those who gave their lives in a great cause. It is equally fitting that

we should remember those who labored undaunted by difficulties and dangers to save other human lives. I pray that this new hospital may nobly carry on in time of peace the work so unselfishly done in time of war.'

President Doumergue paid a glowing tribute to the spirit that has resulted in the creation of the beautiful hospital which, he declared, has the same deep significance to the French Republic as to America and which will ever serve as a tangible sign of the bonds which link the 2 countries. The distinguished veteran, Marshal Foch, added his tribute to that of the French President, declaring that in peace as in war, the two Republics stood together in the great march of humanity.

One of the most colorful moments in the entire afternoon's program was that during which the 7 young girls in their immaculate white uniforms stepped forward to receive their diplomas. Six nationalities were represented, revealing the international character and importance which the training school has acquired. The young ladies to receive diplomas were the Misses Yvonne Matthews (American), Eugenie Soulina (Russian), Madeleine Fortin (French), Zara Wang (Norwegian), Ethel Clemens (English), Mabel O'Hehir (Irish), and Stella de Winton (French). 'Under any circumstances, the day of graduation is an important date in the life of a nurse,' declared Dr. Edmund L. Gros, President of the Hospital staff, and one of the most ardent workers in the interests of the new building, 'but this is the greatest day that any class will have for many years to come: the day of the official opening or inauguration of this great Memorial building, the final realization of our fondest dreams, the culmination of the tireless efforts of those who have labored for years, not without struggle, to erect this great Hospital.

A glorious monument which rises to the memory of the brave men and women who offered their services to their country in the World War, and particularly to our heroic soldiers who fell on the battle-fields, fighting side by side with their French and English comrades, or met a lingering death in some military hospital. Thousands were treated in the American Ambulance or in the little hospital yonder. We, who have dressed their wounds, and assisted at their death agonies, know that no monument is too great to commemorate their deeds of valor or remind us of their sacrifices. This building is not therefore a mere mass of



stone. It has a sacred significance. It vibrates with life, and the souls of those who have passed, have entered these walls and have become the spirit of charity and love from which will emanate a feeling of infinite comfort and peace to those who enter here.'

Following his address in English, Dr. Gros (a graduate of Stanford University, California) addressed a short speech in faultless French to the gathering and was at the side of President Doumergue on his trip of inspection of the building and grounds.

Among the messages to be received from America was a cablegram from Dr. C. C. Burlingame as Chairman of the Medical Administration Board in America. His message read: 'The American board sends greetings for May 12. We see in the great hospital an increased opportunity for strengthening the bond between the American and French medical professions which must ever be united by science and by their common dedication to the sick.'

Mr. William R. Hereford, Honorary Secretary of the Hospital and an ardent worker in its interests, was regrettably unable to be present, being confined to his home with an illness. Mrs. Hoover Hanger, who was delegated to represent the Daughters of the American Revolution who last year donated \$10,000, was present for the dedication of the memorial room outfitted by the association and known as the D. A. R. Benjamin Franklin Chapter Room."

The new Memorial Building of the American Hospital was erected at a cost of \$1,000,000, which fund was secured by public subscription, and entrance to the hospital grounds is at 63 Boulevard Victor Hugo, Neuilly-sur-Seine, only a short distance outside the city walls of Paris going by way of Porte Maillot. In the front hall one may observe a bronze tablet, surmounted by an American Eagle, and bearing the inscription, "Memorial Building of the American Hospital of Paris, Dedicated to the Memory of the American Men and Women Who Served in the Great War—1914-18."

In the Reception Room is a marble bust of the Founder and First President, John H. Harjes.

The General Manager, or Hospital Superintendent, is Mr. George A. Trube, and the Superintendent of Nurses, Miss Ruth Ware; and both are most courteous to visitors who wish to learn anything about the institution of which they are so justifiably proud.

## In Lighter Vein

### Before and After.

Before they were married he whispered to her: "Were I drowning in the middle of the Atlantic Ocean—going down for the third time—you would be the last person I'd think of."

It made her feel very happy.

After they had been married several years he made the same speech.

It didn't seem to have the same meaning then. Besides, she didn't like the way he said it.

So she hit him with a plate.—R. C. O'Brien.

A record grape crop is predicted for 1926. Naiveté consists in believing that this indicates a record jelly production.—Arkansas Gazette.

In Peking they are executing editors without a trial. Well, most editors have trials enough.—Baltimore Sun.

Hubby (on phone)—Sorry, honey, I'll be awfully busy at the office and can't get home till late.

Wifey—Can I depend on that?—Oklahoma Whirlwind.

Gene Tunney says that if he ever marries, he'll quit the fight game. Optimist!—Cincinnati Enquirer.

"I guess I've lost another pupil," said the professor as his glass eye rolled down the kitchen sink.—Washington Cougar's Paw.

Son, the key to success doesn't fit a night-latch.—Fort Worth Star-Telegram.

The more patient pedestrians, the fewer pedestrian patients.—Wall Street Journal.

A fellow crossed his carrier pigeons with parrots so that when they got lost they could ask their way home.—Denison Flamingo.

The parson met a parishoner of dissolute habits. "I was surprised, but very pleased", said he, "to see you at the prayer meeting last night." "So that's where I was," replied the man.—Pathfinder.

Mose: Does yuh really love me or does yuh jest think yuh do?

Rose: Yas, indeedy, Honey. Ah really loves yuh; ah ain't done no thinkin' yit.—California and Western Medicine.

### Everybody on the Job.

Mother's in the kitchen

Washing out the bottles;

Sister's in the pantry

Taking off the labels;

Father's in the cellar

Mixing up the hops;

Johnny's on the front porch

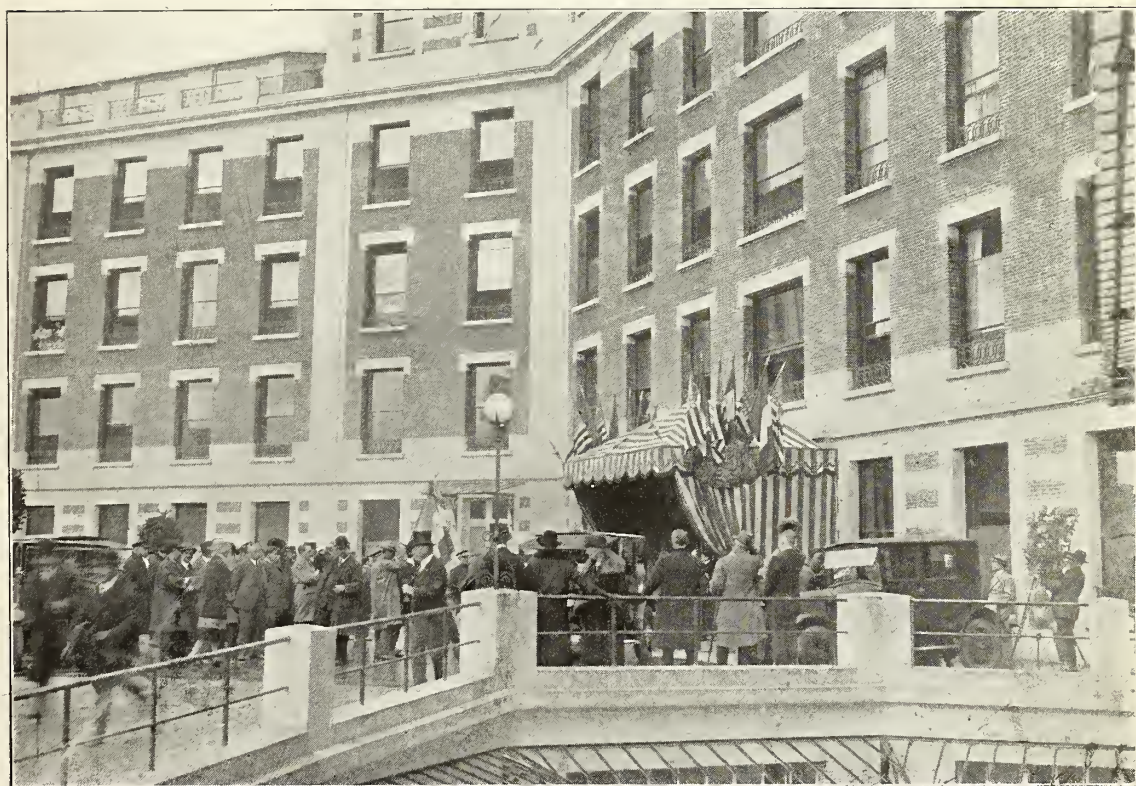
Watching for the cops.

—The Kalends.





THE AMERICAN HOSPITAL OF PARIS  
Main Entrance: 63 Boulevard Victor-Hugo, Neuilly-sur-Seine.



GATHERING FOR DEDICATION EXERCISES





INTERIOR VIEW OF A WARD



IN THE CHILDREN'S WARD

## Observations from the Lighthouse.

Following up our November review of the cardiac symposium presented at the last A. M. A. meeting, and remembering that something over a year ago we devoted this space to consideration of the new surgical treatment of angina pectoris, it seems appropriate to abstract several papers of recent date dealing with sympathectomy and nerve block in the treatment of cardiac disease.

### Sympathectomy in Angina Pectoris.

Cutler and Fine, (J. A. M. A., 86:1972, June 26, 1926) in a discussion of this procedure, present the clinical records of 8 cases of angina surgically treated, and comment upon the series as follows:

From a consideration of these cases it becomes evident that a single or bilateral extirpation of the superior cervical ganglion or of the entire cervical chain and first dorsal ganglion will frequently give temporary complete or partial relief and often will fail. The complete operation is less likely to fail entirely, however, than simple superior ganglionectomy. (Case 4 showed return of pain after the simple operation, but was apparently improved following the secondary removal of the stellate ganglion on the same side.) In certain cases it appears that what was considered a leftsided angina before operation has been converted into a rightsided angina by a left Jonnesco procedure. This, however, means that the leftsided angina was relieved and the residual rightsided angina, not noticed by the patient preoperatively because of its comparative insignificance, now remains. Contrary to our conception of the anatomic factors involved, from which it would seem that proper sensory nerve ablations ought to stop the pain immediately afterward, certain patients eventually totally relieved, even after complete bilateral Jonnesco procedure, will still have pain, as a rule reduced in severity, postoperatively for a few weeks or months. This is ample evidence to indicate the insufficiency of our knowledge concerning the sensory innervation of the heart.

We have in no case observed any deleterious effects on the cardiac capacity of the patient as a result of operation. A few have expressed the opinion that cases of syphilitic angina are particularly dangerous cases for operation. It is difficult to understand why sympathectomy should be dangerous in these cases. A general anesthetic and prolonged surgical trauma may well be deleterious, but these are matters that enter into consideration as a routine in any case of syphilitic cardiac disease in which an operation is contemplated. When these dangers are duly cared for, a case of syphilitic angina should benefit from the operation as certainly as any other type of case.

The cases that are particularly dangerous in our experience are those which present advanced cerebral arteriosclerosis combined with severe coronary disease. They will not tolerate any surgical procedure well, and it seems as if sympathectomy makes them definitely worse, although it may relieve the pain.

Among the most distressing postoperative complications of the procedure are the by-effects of sympathectomy, which seem to be directly proportional to the degree of nerve resection. The Horner syndrome is a minor defect that compensates itself in time. But particularly annoying are the pains that are felt in the shoulder,

neck, face, jaw and arm on the side on which operation is performed. In the jaw, especially along the ramus, and in the temporomandibular joint, the patient experiences a severe pain especially at the onset of a meal, and it may persist throughout the period of food ingestion in severe cases. There is a constant ache in the shoulder or scapula and down the arm, particularly at night, which is difficult to relieve except by narcotics or local counterirritants. Areas of hyperesthesia on the face, ear or neck will vary, as do those of anesthesia, with the amount of injury done to the cervical plexus during the operation. These symptoms vary in severity and extent of distribution in different cases, and may be so distressing as to make the cure seem worse than the disease. One patient of ours compared the terrible feeling in his entire left arm to a sensation of an infinite number of "slivers" sticking into it. Because of the transitory nature of these symptoms, it seems that they may be due to one of several possibilities—the altered vasomotor control of the organs and tissues deprived of their involuntary nerve supply, or irritation of the somatic sensory neurons of the spinal and cerebral ganglions as a result of neuronc degeneration of the severed sympathetic nerves.

That surgery will come to have a definite place in angina pectoris seems promising, but it is impossible as yet to say definitely which is the most desirable procedure of those proposed. We lean in favor of the partial Jonnesco procedure, unilateral or bilateral, depending on the individual case.

Unfortunately, this is not a subject susceptible of laboratory investigation beyond the point of establishing the possible location of the extrinsic nervous connections of the heart. It should be remembered by all who would shoulder the responsibility of operating on such patients that this study is still in its experimental stage and that only those who are carefully studied and carefully selected before operation and are followed until the end-result is known can be justifiably submitted to operation.

In the general discussion of this paper, Drs. Coffey, of San Francisco, and Lambert, of New York, presented some interesting observations:

Dr. Walter B. Coffey, San Francisco: Five years ago I severed the superior cardiac nerve and the main branch of the sympathetic in a patient suffering from frequent attacks of angina. Physiologists claimed that there were no fibers of sensation as high as the superior ganglion. The fact remains, however, that the 8 or 10 attacks a day in my case ceased. This operation has accomplished all that any of the numerous procedures more complicated and dangerous have done with equally less disturbance and less mortality, for attacks have recurred after unilateral and bilateral resection of the stellate ganglion. I have now operated in about 35 cases with encouraging results. Four times I had to resect on both sides. I cannot emphasize too strongly that surgeons should not attempt the procedure without the advice of good clinicians. No patient on whom I have operated has died of an attack of angina. The few deaths were from an underlying organic lesion.

Dr. Alexander Lambert, New York: Sympathectomy by several different operations has been successful for the relief of anginal pain, but the same surgical procedure in one man has not relieved the pain in another. The variation in man of the pathways of the sensory nerve fibers is as varied as are the opinions as to what is best to do. It is not known which are the usual



sensory pathways in man. The opinions of Danielopolu and the French observers differ from those expressed by Ranson and by Cutler. The operation of sympathectomy has a low death rate, but when the stellate ganglion is removed, there is a distinctly greater death rate from the immediate effects on the patient than in any of the other operations. If this stellate ganglion is removed, about  $\frac{1}{2}$  of the patients die of acute edema of the lungs soon afterward. The success of the various operations may be due, not to cutting of the sensory fibers, but to breaking up of the reflex arc, and a prevention of excessive stimulation of the vasoconstrictor reflexes. All this doubt as to what may be the result of any given operation of sympathectomy emphasizes the wisdom of trying a procedure, previous to operation, which stops the pain where it expresses itself on the body. All sensory nerves coming from the viscera go through some spinal nerve to the spinal cord by way of the white rami; these white rami occur only from the first dorsal to the fourth lumbar; therefore, when pain comes from the heart, it goes into the spinal cord through one of these nerves. All sensory nerves go through the posterior root ganglion of these spinal nerves, and this posterior root ganglion can be reached and the sensation of pain can be blocked off in that root ganglion. This has been done in New York by Dr. George Swetlow with marked success. It is not a difficult operation, it does block off the pain where it shows itself in the body segment, and it is the relief of pain that the patient seeks. It is asserted that the pain of angina is a warning, and a protective sensation: It is well to remember that the pain is the other man's pain, not yours, and he should be the one to decide whether or not it should be removed, especially since Bayliss has shown that through the sensory nerves the vasoconstrictor reflexes cause the danger in the angina. If these vasomotor reflexes can be cut off with the cessation of pain, the advantage is vastly greater than the mere relief of the pain. Most patients in whom the pain has been relieved by sympathectomy have shown distinctly an increased ability for exertion without excessive cardiac disturbance, which they did not possess previous to operation. Thrombosis of the coronaries, or coronary disease, does produce pain, and not all anginal pain comes from the aorta alone. It is also a curious fact that 25% of those suffering from coronary disease have their expression of it in the epigastrium in the nerves that come out from the second to the ninth dorsal vertebrae running into the plexuses on the esophagus, lungs and heart. One cannot by any sympathectomy stop this expression of pain. In the epigastric pain, therefore, one is reduced to the necessity of blocking it, if one desires to help it. In only 10% of patients suffering from coronary disease does the pain go down the arm and sympathectomy have a chance to help.

The reference to Swetlow's work, made by Dr. Lambert, leads us to call attention to an article by Swetlow and Schwartz (J. A. M. A., 86:1679, May 29, 1926) which outlines the newer method.

#### **Treatment of Cardiac Pain by Paravertebral Alcohol Block.**

According to these authors: Because of the insufficiency of the anatomic knowledge, as many as 8 different operations have been devised for the relief of cardiac pain. The following briefly summarizes the operations that have been performed:

Cervical sympathectomy, including resection of the stellate ganglion on the left side and at times bilaterally.

Section of the depressor nerve on the left side and at times bilaterally.

Section of the sympathetic cord above the stellate ganglion on the left side.

Section of a nerve fiber emerging from the vagus nerve on the left side alone or at times bilaterally.

Cervical sympathectomy without resection of the stellate ganglion on the left side and at times bilaterally.

Resection of the sympathetic cervical cord (without the inferior cervical ganglion) completed by section of the cervical vagus branches which enter into the thorax as well as the so-called vertebral nerve and the rami communicantes, which unite the stellate ganglion with the sixth, seventh, eighth, cervical and first dorsal nerves.

Section of the cervical sympathetic, together with the superior cardiac nerve on the left side.

Section of the cervical sympathetic above the inferior cervical ganglion, including section of the vertebral nerve on the left side.

This enumeration gives ample evidence of the insufficiency of the anatomicophysiologic knowledge of the pathway of pain from the heart to the thalamus, and suggests sharply an uncritical attitude on the part of those who subject patients to an operation based on such fragmentary understanding. Dr. James Mackenzie has bitterly opposed reckless operative intervention based on such meager scientific data.

The employment of paravertebral alcohol block to relieve pain in malignant disease of the chest as well as in a variety of other conditions has given us such gratifying results that its use in the different types of cardiac pain seemed worth investigating.

Nearly all pain impulses, irrespective of their point of origin and of their pathway in the spinal cord, ultimately enter the spinal cord through the dorsal root ganglions. Constant stimulation of the small cells in the dorsal root ganglions by impulses coming from the heart is referred to the skin segments supplied by the respective ganglions, which in turn refer this irritation to the consciousness as pain. The axons of these small cells are unmyelinated and form fibers which convey protopathic stimuli. The introduction of alcohol into these irritable nerve fibers produces a wallerian degeneration. The site of the injection is determined by carefully mapping out skin areas of hyperesthesia, hyperalgesia and hyperthermesthesia on the chest wall. The nerve roots and dorsal root ganglions that supply the areas of increased epicritic and protopathic sensibility are presumably the ones kept in a state of irritation by the bombardment of afferent impulses from the heart. With the usual technic of paravertebral injections, from 3 to 5 c.c. of an 85% solution of alcohol is injected into the nerve roots identified by the foregoing procedure.

The detailed clinical histories of 5 cases are presented, with the following conclusions:

(1) In attempts to relieve angina pectoris by operation, there are dangers and inconsistencies.

(2) Five patients were relieved of severe cardiac pain by paravertebral injections of alcohol.

(3) The results indicate a new, efficacious, simple and harmless method of alleviating severe cardiac pain.

## Medical Book Reviews.

(Department Director, Royce Paddock, M.D.)

### REPORT ON THIRD INTERNATIONAL CONGRESS OF MILITARY MEDICINE AND PHARMACY, PARIS, APRIL, 1925.

William S. Bainbridge, Commander Medical Corps,  
U. S. Naval Reserve, Washington, D. C.

(Reprinted from The Military Surgeon.)

Commander Bainbridge has prepared this report, which is published by the Association of Military Surgeons of the United States. In a foreword Surgeon General Cumming of the U. S. Public Health Service points out with regret that the United States has left to "personal initiative and private means of public spirited members of The Association of Military Surgeons" the very important task of reporting and bringing out in book form the deliberations of the biennial Congresses. These have since 1921 considered the lessons in military medicine learned in the War, and easily forgotten, as regards the technical details at least, in the quieter times of peace.

Four subjects of great importance are reported, and in each subject remarks are made by a few of the representatives of the 42 nations which participated. The more important comments are here summarized under respective headings.

(1) Technical Specialization as the Basis of the Sanitary Service. A very interesting discussion in which Italian delegates appear to have played the outstanding part. Technical specialization is essential in war as in peace. Great confusion arose in the early years of the War due to the lack of organization of technical services on any sufficient scale. Italy stresses the need of specialists in the advanced zone, especially in the neurologic, orthopedic, ophthalmic, facial surgical and radiologic branches, if any effective intervention is to be hoped for in wounds involving the central nervous system, bones, eyes, face and jaws—injuries which produce severest sequels unless there is early intelligent action. Col. Hume, Medical Corps, U. S. Army, reports that 175 hospital units have been organized in the United States from existing civil institutions, such as university medical departments and hospitals. In each case the doctors are Reserve Medical Officers, the attempt being made "to preserve as far as possible, the civil associations existing in the faculties and staff".

A practical note is struck in the almost unanimous opinion that the main point should be to contrive team work between the men in different branches by selecting those who are used to working together.

(2) Selection of the Troops and Tuberculous Recruits. This subject is very practically considered from 2 angles by French delegates. As regards the peace time army, even latent tuberculosis, as disclosed by the best diagnostic means available, should be excluded from the army, since the weaker man is strained to carry out the tasks set for the average soldier. The war-time problem is quite different. The unfit active cases must be discovered and eliminated as well and quickly as it can be done; but latent tuberculous cases may be used for the auxiliary services, which must be accurately rated as regards work

and fitted to the Class B and Class C men. Some delegates in this discussion reported the more refined methods for special tests of fitness and the more modern radiologic methods.

(3) Etiology and Treatment of Traumatic Arthritis: Dérache and Voncken, Belgium; Willems, Belgium; and Rouvillois and Maisonnnet, France, led in this discussion. The importance of the menisci and crossed ligaments in the frequent closed (nonpenetrating) knee-joint injuries was emphasized as causes of the functional disturbances which follow. In general, by avoiding synovial injury as far as possible, removing extravasated blood and foreign bodies, likewise avoiding faulty statics, and by maintenance of muscular tonus of joint muscles, with general strength—much may be done. In the open (penetrating) traumatic arthritis, the treatment corresponds to the 3 stages of the wound: (a) Primary tissue changes as a result of wound. Care is hemostasis, débridement, and suture without drain. (b) Secondary (bacterial) injury. Care is treatment of existing bacterial arthritis. (c) Cicatrization of lesions. Care is treatment of sequels, either immediate (Willems) or early active and passive mobilization.

In suppurative arthritis, wide joint excision with drainage is indicated; with or without Carrel-Dakin irrigation, followed by immobilization in good position or immediate maximum uninterrupted mobilization by Willems method. In cases of grave suppuration, extensive resection or amputation is indicated. The third stage treatment begins with a clinical, functional and radiographic assessment of joint condition, and proceeds with all the accessory arts of physiotherapy and hydrotherapy, and later arthroplasty if indicated. The most important thing in penetrating wounds of the joints is quick transport, while the wound is in the first stage, to the advanced surgical unit, where the primary preventive surgery is done and the soldier can be watched for at least 10 days. If a hurried evacuation is unavoidable, the limb should be immobilized, preferably in plaster of Paris. Willems reports some satisfactory late results of his method mentioned above.

Bainbridge states that he is endeavoring to collect statistics on the relation of war wounds of bones in general to malignancy, an investigation overlooked in previous wars. Many other delegates express their views mainly on the treatment of traumatic arthritis.

(4) Analysis of Dressing and Suture Material: Important data on the requirements of these materials, and the means of testing their qualities in this regard. Absorbent cotton may be tested with Lugol's Solution, for starch, which is considered to demonstrate careless manufacture. Many present methods of manufacture and sterilization are criticized and improvements suggested.

A number of special communications are appended, and an account of the carrying out of the program of the Congress given.

The meetings were held in the Val-de-Grâce, the famous Military Hospital, now the site of the School of Application of Military Medicine. Here a Medical Exposition was held during the Congress and the description given sounds very interesting, as is that of the visit to the Bourget Aviation Field, where various types of aeroplane ambulances were demonstrated. Incidentally, motor transport of wounded by latest methods was shown. The report is very well illustrated and makes interesting, though uneven, reading.



## DISEASES OF THE NEW BORN.

John A. Foote, M. D., Professor of Diseases of Children, Georgetown University, Philadelphia. J. B. Lippincott Co., 1926.

(Reviewed by E. C. Jackson, M.D., Newark.)

This is a monographic hand book written around a comprehensive symposium on the new born child. The author gives as his best apology for issuing a small and elementary work the fact that over 35% of our total mortality occurs within the first 2 weeks of life; it being estimated that in 1921, in the United States, 85,000 new born infants died within 2 weeks after birth.

The first chapter on "injuries and accidents" in the new born is written by Dr. William F. O'Donnell, Clinical Professor of Pediatrics at Georgetown University. In dealing with asphyxia, he recognizes 2 groups, the livida and pallida, and describes both varieties giving their clinical picture and the cause for this condition. He states that the treatment should be rather preventive than curative, and gives some terse instructions from the preventive standpoint. In pallida, he, with Crothers, belittles hot and cold baths, the Schultz maneuver, etc., and advises that active measures should be applied cautiously because of the grave injury that may result from vigorous measures if there is slight intracranial hemorrhage.

He deals quite at length with injury to the blood vascular system and states that he believes it to be next in importance to the foregoing subject. The most important of these injuries to the blood vascular system is intracranial hemorrhage and he calls attention particularly to the fact that it may occur in normal and easy births because of pathologic conditions in the blood or the vessels. He gives very little help, in a paragraph on symptoms and treatment, to the physician who is confronted with a condition of this kind. It is now believed to be good practice in suspected intracranial hemorrhage to routinely give normal human serum, horse serum, or thromboplastin.

Injuries to the nervous system and fractures are so lightly touched that nothing of importance is given to the reader of these pages and the first chapter is concluded with a very sketchy paragraph on congenital deformities.

In the second chapter we find again, in a very short and concise way, the subject of intracranial hemorrhage in the new born which should have been eliminated from the first part of the book. He states that there are 2 clinical types of intracranial hemorrhage: (1) the rapid traumatic type, long known and recognized, mainly due to rupture of large vessels in which symptoms appear very soon after delivery, in which the presence of the hemorrhagic tendency plays a minor rôle; and (2) the slow, spontaneous hemorrhage type, due to injury of minor degree which has been made dangerous through the innate tendency to bleed. In the massive hemorrhage type the rapidly bleeding infant shows symptoms promptly after delivery, is blue and breathes with difficulty, develops tremors of the arms and legs within a few hours, and usually dies within a short time. If he does recover, Littel's disease is the usual sequel. The treatment that he recommends does not differ from that used in the slower type and of course he advocates lumbar puncture, transfusion, or the use of coagulants subcutaneously, all done with as great rapidity as possible. In the delayed hemorrhage type, symptoms do not occur until focal pressure has de-

veloped within the skull. These delayed hemorrhages do not give signs generally until 48 or 72 hours after delivery. The infants, at birth, appear perfectly normal. The first of the symptoms that should be looked for (and turn the attention of the physician to this condition) is the disinclination to nurse. This is not an invariable symptom, of course, but it is, with cyanosis, one of the first symptoms and one of the most constant. Frequently this cyanosis has been attributed to congenital heart disease, which is quite frequent, and has usually been found to be due to intracranial hemorrhage. He sums up as follows: "The first 24 hours after rapid or forced delivery or even after normal labor, irritability, or extreme lethargy, disinclination to nurse, protrusion of the tongue; in the second 24 hours, tenderness of fontanelle, spastic twitching of limbs, intermittant cyanosis or paleness, all point to progressive hemorrhage within the infant's skull. A large number of these infants have diminished coagulability of the blood which may be considered among the symptoms." His treatment is that in general use and he recommends under specific treatment that 50 c.c. of citrated blood drawn from the father should be immediately used hypodermically or intraperitoneally and repeated every 6 hours for at least 3 injections. If this is not available, he recommends fibrogen or thromboplastin.

Dr. Foote's general mortality, in a series of 30 cases of varying degree of hemorrhage seen in consultation early and late, has been about 40%. He states that he has the hope that skill in delivery, avoidance of rough methods of extraction, and rough methods of artificial respiration such as the Schultz maneuver, with early diagnosis and treatment will tend to prevent or render negligible the heavy toll now levied on the new born by intracranial hemorrhage. He rightly decries the pernicious practice on the part of the obstetrician of traction on the after-coming head and similar procedures.

The third chapter, on the care of the new born child, is written by Dr. Foote's associate, Dr. Moser, and there is nothing in this chapter that is not already well-known and practiced by the general physician. Under the heading "Toilet of the Breast" the following statement is made: "...neither can there be any danger resulting from general cleansing of stale milk curds from the baby's mouth once or twice a day". This statement is in contradistinction to Dr. Foote's idea later stated in this book, and also to the common usage in general practice today. It is believed that more damage results from washing infants mouths than letting them alone and nurses are now quite generally taught not to wash out babies mouths.

In the problems of prematurity he rightly states that the first and foremost thing of importance is to maintain the proper animal heat; the second, to provide nourishment in the form of breast milk; and third, to prevent infection. Moser states that he has obtained good results with several substitutes for breast milk and recommends them in the following order: (1) Dried milk powder mixtures. (2) Fat-free whey mixtures. (3) Modified cows skimmed milk formulas. Such "very good results" have not been obtained by pediatricians in general.

In dealing with colicky infants and nervous mothers, he wisely states that to be successful in overcoming this frequent and oftentimes persistent condition, treatment must be undertaken in a systematic and pains-taking manner. Some-



times extending the interval of nursing to 4 hours and reducing the time at the breast to 5 minutes or even 3 minutes in severe cases, is often successful; stating further on that when the interval of nursing is increased and the nursing time diminished, the remaining milk in the breast should be pumped out, or expressed, to insure sufficient stimulation. He advises one and one half to two ounces of boiled water before nursing, in an attempt to dilute the milk in the stomach. In persistent and severe cases he advocates the judicious administration of 1 to 5 drops or paregoric with 1 to 10 drops of peppermint water in each administration of plain water or protein milk just before nursing. The writer believes that the author is simply begging the question by advocating narcotics for colic, and that the practice is not good.

Dr. Foote has written the next chapter on "problems of breast feeding" and his remarks on this subject are quite well-known though in many instances not followed out. As was said previously, he does not believe in the washing of the infants' mouth before or after nursing and says that now it is as deservedly obsolete as the post-partum administration of uterine douches. He enumerates the conditions causing failure of the infant to nurse and the maternal conditions which may prevent the infant from nursing vigorously. His contraindications to nursing are those generally accepted. He stresses the fact that breast feeding is often discontinued for improper reasons, such as the presence of green mucks or curds in the stool, frequently taken by the mother as evidence that her milk does not agree with the child, yet her milk may be perfectly normal and these stools a result of overfeeding. The writer feels that one of the most frequent reasons for discontinuance of breast feeding is the dropping of a hint now and then by the nurse or doctor about the mother's inability to nurse and the insufficiency of her milk. It is a well known fact that nervousness ordinarily prevents or inhibits the secretion of milk and too much cannot be said about the nefarious practice of getting the mother to believe that the quality and quantity of her milk is not right, by either falling in with her ideas on the subject or planting ideas of this kind in her mind.

The author believes, and rightly so, that the mother should eat almost anything in reason that agrees with her and nothing that does not agree with her. She should not stuff, and should of course pay particular attention to her daily habits as to rest and exercise. Engles' experiments with wet nurses in institutions showed that feeding of fat rich foods to nursing mothers has no influence whatever in increasing the quality or quantity of the milk and only tends to produce corpulence and indigestion in the mother.

When disturbances in breast feeding occur, Dr. Foote believes it is well to ask first whether or not the disturbance is due to overfeeding or underfeeding, or does the fault lie with the infant or with the food. So rarely in overfeeding is the quality of breast milk at fault that the first procedure to institute in an attempt to find the cause of lack in gain of weight, is to weigh the baby before and after each nursing in order to find out how much milk is taken from the breast. This simple measure is so frequently forgotten by the general practitioner that it is here stressed. Of course, if the amount found to be taken is insufficient for the baby's needs, the breast milk must be complemented by a cow's milk mixture.

One of the diseases commonly seen in the new born, or rather, so listed as a disease, is the

Holt inanition fever. It has been variously attributed to lack of fluid, transitory sepsis, intestinal auto-intoxication and many other causes. The lack of fluid undoubtedly plays a part in its etiology, though probably not the sole part. It may be noted, however, that the practice of giving water or a weak sugar solution until the milk flow has been established usually is sufficient to not only stop the marked loss in weight but to prevent such rises in temperature. In his description of the blood and anemia in the new born, he mentions the fact that the hemoglobin usually reaches 110 to 120 at birth and tends to fall rapidly until it reaches 90 at the end of the second month; but the red blood cells remain at 5 to 7 million. The normal leukocyte count at birth is from 16,000 to 20,000.

The author has a paragraph on the hemorrhagic tendency and debates in another paragraph whether or not all new borns are potential bleeders. He simply touches the symptoms of intracranial oozing, and bleeding in the alimentary tract, going on to the treatment of hemorrhagic diseases, giving very little space to detail on this important subject. He apparently uses a Tallqvist hemoglobinometer in his estimations, which the writer thinks a very sketchy method. After a few words on jaundice and hemorrhages, and a paragraph on pylorospasm or pyloric stenosis, which he apparently considers the same condition, he goes on to the secretion of breast milk and mastitis in the infant with the advice that expectant treatment should be used at first but if rigors and high fever result, incision and drainage of the abscess is indicated.

Under the acute infections of the new born, the author first discusses conjunctivitis and otitis and stresses, of course, prophylaxis of the eyes in the new born, advocating the immediate use of silver nitrate and in otitis immediate puncture of the drum followed by irrigations with warm salt solution and the instillation of 1 or 2 drops of a 2% solution of mercurochrome.

Infections of the umbilicus are dealt with in some detail and he recommends generally the application of compresses wet with hot solution of boric acid, frequently changed, followed by surgery if found to be necessary.

Sepsis of the new born, he states, may result through the multiplicity of routes, which may develop a varying picture in focal symptoms. A pharyngitis, an otitis, a stomatitis, or gastrointestinal infection may be the starting point of sepsis, or it may follow a general skin infection such as impetigo or a diffuse process such as erysipelas. A pneumonic involvement may be the starting point and most of the pneumonias of the new born are septic in type. A diagnosis of the focus of origin is quite frequently impossible. The diagnosis of sepsis itself is extremely difficult. In a premature infant the absence of fever may be misleading. The treatment should be first of all preventive and all infants in hospital practice should be isolated and have special nurses.

In speaking of peritonitis under this heading he says it is not uncommon in wasted and atrophic infants during the first weeks of life. It usually follows umbilical vein infection or colitis and is usually fatal.

The chronic infections dealt with are syphilis and tuberculosis. The early syphilitic lesions Dr. Foote gives as enlargement of spleen, of moderate degree, enlargement of the superficial lymphatic glands, especially the epitrochlear glands, and a slight enlargement of the liver more than a finger's breadth below the costal margin, and lesions of the bony skeleton—epiphysitis or

periostitis or perichondritis. In treatment, it was the author's practice to give neo-arsphenamin in doses of 15 mg. per kilogram of body weight. He says rightly that the question of treatment forms a topic for lengthy discussion which is not to be attempted in a book of this type. The question of tuberculosis, which should receive rather lengthy discussion is not discussed at all and he goes on in the tenth chapter to take up the very interesting congenital heart disease and the common deformities and mal-developments. The 3 diagnostic points in the determination of congenital heart deformities are given as: (1) cyanosis, persistent and continuous; (2) systolic murmurs over the heart but loudest at the base or over the sternum; (3) marked increase of red cells over 5,000,000.

The developmental anomalies, congenital hernias and new growths are given about 14 pages and one looking for a complete dissertation on these subjects would do well to seek elsewhere for complete data. However, the bibliography to this interesting section is complete and well gotten up.

The procedure of lumbar puncture is described in detail and is well worth reading by those who are accustomed to use it in their diagnostic work in children.

Minute directions for determining coagulation are given in another paragraph and such procedures as eye irrigation, catheterization, bladder irrigation, rectal injection, irrigation with single tube and double tube, culture taking in the throat and nose, smear taking, gastric lavage and gavage and nasal irrigation are all described in detail and well. The use and technic of intraperitoneal injection by the syringe or gravity method, is taken up fully and the intravenous injection by the syringe and gravity method is discussed in full detail. Other procedures such as superior longitudinal sinus injection, cisterna puncture, ventricular puncture are all given by steps and with complete detail as to apparatus needed for each. He finishes this quite useful chapter by enumerating methods of treatment of acquired umbilical hernia by strapping with adhesive plaster, and the application of the truss in inguinal hernia. The Saxony yarn truss is a very useful one and well described as regards its application here.

The next chapter on "habit formation in the new born" deals with congenital fears which are absent in most normal children. Some of these fears may be considered instinctive, such as fear of a loud noise or the fear of falling. Many other kinds of fear may be explained by their original association with either a loud noise or a fall—at least such is the belief of those that follow the "behaviorists". The subject is such an intricate one that those who wish to delve into it fully are referred to complete works on the subject. The infant's habits, such as crying, which are usually the fault of the doctor or mother are gone into very carefully. Something is said in regard to the training of children in this regard and 2 or 3 paragraphs are given to the "nervous mother", who the author believes is often the result of bad training in childhood. Some very good but time worn instructions are given to individuals of this variety.

Finally, this little volume is completed by a discussion of the mortality in the first month of life, from birth injuries, congenital anomalies and hemorrhage, and the last chapter deals with problems of prenatal and neonatal mortality, in-

teresting subjects of course, and coming well within the province of a book of this type.

Just as Dr. Foote said, in his preface, Montaigne once wrote: "I have gathered a bouquet of other people's flowers and only the thread that holds them together is my own", just so the writer believes that this book contains only the thread that holds a mass of flowers together. Those who actually wish the flowers should seek them in the larger complete works on this subject.

## Lay Mirror Reflections

### DOCTORS AND POLITICIANS.

Members of the medical profession sometimes feel that their best endeavors are not duly appreciated or, at least, adequately compensated, and, they are very often disturbed by the apparent public support of medical quacks and charlatans. It would seem that similar conditions exist in other fields of labor. Not only are theologians beset by numerous crazy religious cults; leaders of the legal fraternity concerned over the antics of the shyster lawyers; bankers outraged by the wildcat money-making schemes of swindlers; but, we are now told that even honest politicians are constantly worried by the proceedings of agitators and the fickleness of the people.

Commenting upon a speech of the English Prime Minister, Hon. Stanley Baldwin, the New York Times, December 1, 1926, says editorially:

"In the course of a recent address before the Society of Medicine, Prime Minister Baldwin indulged in a quietly humorous comparison between medicine and politics. Describing himself as a kind of public practitioner, he said that he did not always succeed in either satisfying or curing his patients. Obviously referring to the long drawn out coal strike, he admitted: 'I have been trying to prescribe for some time with complete failure'. On the point of the rewards of the physician as compared with those of the public man, Mr. Baldwin said that if the salary of the latter varied with his popularity, it would exhibit some extraordinary fluctuations. Taking up his own case, he remarked: 'Just after the general strike I should have had a remuneration that would satisfy even me, but possibly now it would be a much more modest amount. What it may be next year I would hardly like to prophesy.' This was a characteristically frank and unassuming diagnosis of his own political illness quite worthy of a member of the faculty.

This suggested interpretation of politics in terms of medicine might be pushed in many departments. In public life, as in the profession, there is no lack of quacks and charlatans. Stump speakers and soap-box orators have a ready nostrum for every political ill. It is as hard to put them down, or to induce people to form correct opinions of them, as it is in the case of medical impostors. Then on a higher level we may easily see in politics two different schools of medicine at work. We have the politicians, or the



agitators, who are all for instant operations, be they minor or capital. The knife cannot be used too freely or too quickly to suit them. Their method is cure or kill. On the other hand, we have the calmer political practitioners, who believe, as do many physicians, that Nature can be counted upon to work by far the larger proportion of cures, provided she be given the chance and plenty of time. There is such a thing in public life, too, as the 'expectant treatment'. A wise and patient political leader knows from experience that the sick man will often get well, if let alone, even while the anxious orators out in the street are waiting for him to die."

## HOUSE CLEANING.

When the Legislature of New York last year passed a new law governing the examination and licensure of medical practitioners, a new feature was added to such state laws in the form of provision for a judicial council within the organized profession—a "grievance committee"—to pass upon the character and professional conduct of registered physicians. It was said that the profession, objecting as it does to the qualifications and actions of many irregular so-called healers, should assist in cleaning its own household by ridding itself and the public of some more or less disreputable persons masquerading under the professional cloak. It remains to be seen how effective our borrowing from the legal profession their general plan of "disbarment proceedings" will prove. That fear of trial and disbarment has not proved sufficiently powerful to keep the legal fraternity quite clean is evidenced by many common happenings but we were somewhat surprised this summer to read that the President of the American Bar Association had in strong terms called upon the bar "to clean its own house", and that in doing so he had referred in complimentary terms to the progress of the medical profession.

There can be little doubt that both professions—legal and medical—need to do a bit of house cleaning, and need to provide better protection against the accumulation hereafter of dust from new sources. Toward that end the better element in both groups is constantly striving. Perhaps they will soon—after some of the more pressing problems of each organization have been solved—join in an effort to dispose of that shocking condition which is a disgrace alike to the lawyer and the physician, i.e., the method of dealing with expert testimony. Of that question we may have something to say later; at present we will content ourselves with presentation of an editorial from the Newark Evening News, July 15, 1926, calling upon the lawyers to help stamp out crime.

"Chester I. Long's address as President of the American Bar Association gains impressiveness from the almost simultaneous publication of the recommendations of the National Crime Commission for changes in the penal laws of all states for the expedition of justice. Both recognize that the courts are not functioning satisfactorily in the enforcement of criminal law. While the crime commission offers some 20 definite recommendations for correcting codes of criminal procedure, Mr. Long contents himself mainly with calling upon the legal profession to take upon themselves the work of improving judicial machinery.

'There has been no such progress in the improvement of our judicial machinery', Mr. Long told the lawyers, 'as has been made in the medical profession in the past 25 years'. The reason he gives for this slow progress is 'the natural conservatism which permeates the American Bar and the desire to stand for methods of procedure that are antiquated as against any change of improvement'. Laymen, exasperated by the failure of the bench and bar to act, have undertaken, through legislative interference and other ways, to find remedies which Mr. Long believes only the legal profession are capable of prescribing. He put it up to the bar to clean its own house.

The National Crime Commission calls attention to the 2 theories upon which codes of criminal procedure are founded. One is that such codes should be framed primarily for the protection of the citizen against possible injustice and oppression by the state; the other, that a criminal code should provide for such a judicial investigation of a charge of crime as will lead to a prompt and definite decision as to guilt and punishment. The latter is adopted by the commission as the one that should obtain if society is to protect itself effectively against its enemies. Under these recommendations the chairman of the commission, former Governor Hadley, claims the trial of a criminal case will become less of a game or contest of skill, cunning and endurance between opposing lawyers, and will become more of a judicial investigation under the trained and impartial direction of the judge to ascertain the truth.

Two of the most important recommendations, in the opinion of the chairman, are the right of the judge to comment on the evidence, as at common law, and his right to comment on the failure of a defendant to testify. The first of these obtains in only 8 states and the latter in only 2 and to a limited extent in but 3 others, although they are found in the criminal procedure of Canada and Great Britain and every other civilized nation which has jury trial. The third of the more important changes proposed is a recommendation for a five-sixths jury conviction in everything except murder cases.

Of even greater value than the definite recommendations of Governor Hadley's statement of the reasons why the recommendations were made; Ninety per cent of those guilty of committing major crimes in this country are not apprehended and punished; 75% of those apprehended and prosecuted escape the minimum punishment provided by law; the 'archaic, cumbersome and ineffective system of criminal procedure that now obtains in a majority of our states' is one of the principal causes of this condition.

If the bench and bar know this to be true; if, as the President of the American Bar Association says, the conservatism of the lawyers and their marriage to antiquated methods of pro-



cedure is responsible for it, then it is squarely up to the legal profession to bestir itself or have political bodies, that are perhaps nearer to the people, do it for them."

## MEDICAL WHISKY DECISION EMBODIES MORAL ABSURDITY.

(Editorial Newark Evening News, Dec. 1, 1926.)

The five-to-four Supreme Court decision upholding the "pint in ten days" limitation upon whisky's use as medicine rivets another prohibition absurdity. And the opinion by Justice Brandeis steps out of the strict question at issue to embody an error of fact.

Congress in the Volstead act conceded therapeutic value to whisky, because it provided for the continued manufacture, under control, of whisky for this employment. Then it proceeded to usurp the functions of the physician by prescribing how much could be used, without regard for the form of ailment, the resistance of the patient to alcoholic stimulation or the doctor's knowledge and responsibility when confronted with an issue of life or death.

A pint of whisky in ten days is equivalent to a few spoonfuls per day. In the influenza epidemic many high-grade physicians used literally quarts in shorter periods per patient, and saved lives. Even law enforcement officers, appealed to in the crisis, cast aside the legalistic view and aided in procuring the necessary liquor in extreme cases.

Recognition of this experience was given abundantly in the doctors' referendum on the question whether whisky had medicinal value. And here enters Justice Brandeis's glaring error. He refers to a resolution adopted at a meeting of the American Medical Association, which denied therapeutic value to whisky. But medical association meetings, like meetings of other similar bodies, are made up of minorities. And there was better evidence of the doctors' view, which he ignored.

(After presenting a record of the late discussions and actions of the A. M. A. on this question, the News concludes as follows):

The court's close division leaves the public at large privileged to question whether even in law Congress has the undeniable right to invade the realm of the reputable practitioner of medicine in a matter of judgment which may hold the scales of life in its right employment.

## National Medical News.

### ANNUAL CONFERENCE OF STATE SOCIETY SECRETARIES AND EDITORS.

The Annual Conference of Secretaries of the Constituent State Medical Societies was held at the headquarters of the American Medical Association, in Chicago, November 19-20, 1926. The editors of the state society journals were invited to participate in the proceedings, and the conference was also attended by the general officers and members of the Board of Trustees of the national association.

This annual conference has become an important feature of organization work, largely because it affords an opportunity for an exchange of opinion and experiences under exceptional circumstances. The state society representatives learn from one another in discussing their suc-

cess and failures, and return home with new plans for future work and with renewed courage and vigor to attack their several problems. The state and national organizations are brought into very intimate contact at these conferences, where matters of common interest and which require cooperative effort, are principally considered, and the administrative officers of the American Medical Association have perhaps their best opportunity to secure a picture of conditions in the component groups and to study the reasons for differences of medical opinion in different parts of the nation. Certainly these meetings are of great value to the attending state society officers, and we are inclined to believe they may prove to be almost as valuable to the parent association as a meeting of the House of Delegates.

The conference organized by electing Dr. W. G. Ricker, Secretary of the Vermont Association, as presiding officer.

The Friday morning session was opened by an address of welcome and an outline of the program by President Wendell C. Phillips, and at the commencement of the afternoon session President-Elect Jabez N. Jackson delivered an address on organization work and plans.

Dr. Morris Fishbein, Editor of the Journal of the American Medical Association, gave an extremely interesting resumé of his "Impressions Gained from Visiting State Medical Association Meetings". New Jersey was not among the states on his list, so we escaped any direct criticism but we did feel that some of his remarks were as applicable to us as to the states named. Two suggestions were thrown out which, if adopted, might help to still further advance the benefits disseminated at our annual gatherings. In the first place, those states that have made clinical demonstrations a feature of the program seem to have found them a successful measure. Secondly, Fishbein advocated giving one session to consideration of economic and social problems affecting the profession.

The "Need for a Uniform Constitution and By-Laws" for constituent societies was discussed by Dr. George E. Follansbee, of Cleveland, and a "model", prepared by a special committee of the A. M. A., was offered for consideration of the state organizations.

"How Can We Secure Closer Cooperation with Other Professions and with the Laity?", was a topic presented by Dr. D. E. Sullivan, Secretary of the New Hampshire Medical Society, during the discussion of which it was evidenced that a number of the state societies are devoting considerable attention to public education in medical matters.

"The Part of the State Journal in Medical Organization", a subject introduced by Dr. F. A. Long, Editor of the Nebraska Medical Journal, failed to elicit effective discussion, through an accident often observed in such meetings, i.e., the train of discussion got off the track almost at the start and ran along the switch line of trials and tribulations of editors, rather than the main line indicated by the essayist.

The very engrossing subject of "Periodic Health Examinations" occupied the entire Saturday morning session. After presentation of several formal papers, states were called alphabetically on a request for information as to progress being made in each district. The general tenor of these reports was to the effect that slow but steady progress is being made in developing this work; that public appreciation of the subject is in advance of the profession's state of pre-

paredness; that, in other words, the demand for physical health examinations is far in excess of the supply of readiness on the part of physicians to carry on". All over the country appeal is being made to the "family physician" to show more active interest in this field of work, and to show him that here lies a fertile field of endeavor awaiting his cultivation.

In this connection, Dr. R. McE. Schauffler, President of the Kansas City Health Association, gave us an abstract of an address to the Jackson County (Missouri) Medical Society, which contains a number of interesting points:

"The importance of prenatal examinations and of the inspection of infants, preschool age and school children is now generally admitted. Army and Insurance examinations have long existed. Medical inspection of industrial groups is coming in vogue.

We have 'Well Children's Clinics'. The time is at hand to pay some attention to supposedly well adults. All groups interested in public health are urging periodic health examinations.

Some cynics in our midst say that they are useless, that the span of life of middle-aged people is already fixed by heredity and early childhood and that it cannot be altered, so why make people unhappy by telling them their fate. I am not ready to agree with the view. It is true that the life expectation has heredity as its foundation. There are, however, 2 other factors—environment, and the patient's reaction to his environment. Both of these are, to a considerable degree, under our control and I cannot believe but that almost anyone can be helped by wise, scientific advice to reach his normal expectancy of life.

The only question with me is who ought to do this and how can it best be done? It is easy to answer, 'the general practitioner'. Of course it cannot be done without medical men, but can it be done without organization?

The great commercial agencies like the Life Extension Institute have many advantages. With a fine business and scientific organization the Life Extension Institute had a deficit for 4 years, paid its first dividend on preferred stock at the end of 10 years and even when it had reached a half million examinations a year was not yet paying dividends on common stock. Its earnings were all going into advertising and solicitation to persuade people to do the sensible thing and be examined.

We could not spend any large sum in advertising if we were willing to do so. We must consider and use all available dignified means to sell the proposition to the public. Shall we lend the name of the Society to solicit clients for individual members of the Society? We have certain agencies at our command for general publicity in connection with public health addresses.

The second advantage of these organizations is a control board of medical directors to whom the reports of the local examiners go and from whom come the letters to the patient and family doctor and the literature as to diet, exercise and the care of minor ailments. There is certain force in a recommendation to go to your doctor for further examination or treatment which comes from an impersonal agency which cannot profit by the medical fees.

Will it not be necessary for us to have at least some central committee to issue forms, check up to some extent on examinations, furnish literature and provide a central laboratory for doctors not so situated that they can do the laboratory work.

A periodic health examination will take more time and have a broader scope than the ordinary life insurance examination. On the other hand it must not attempt the work of a diagnostic clinic. The question of the fee is difficult. Shall we charge the head of a family \$10.00 but make him a reduced rate for dependents?

There are 3 possible dangers which I can see.

(1) That the examination will not be well done, some big thing being overlooked or that the importance of some lesser finding will be underestimated.

(2) That we will not give adequate advice about the slight derangements or faulty habits which we discover.

(3) That we will make too much of unimportant findings and persuade the patient to start treatments which are not essential.

In closing let me stress the fact that nothing will so much help to sell periodic health examinations to the laity as to have a large percentage of the members of this Society themselves go to some colleague for such an examination.

## Clinical Reports.

### GIANT FIBROID OF UTERUS; REPORT OF CASE.

Albert S. Harden, M.D., F.A.C.S., Associate Gynecologist St. Michael's Hospital, Newark, N. J.

The rarity of this class of tumors is the excuse the author offers for presenting this case. With the early diagnosis of tumors of the female generative organs and the rather definite symptoms that are characteristic of fibroids, it is extremely rare that one is confronted with tumors that have attained such a size as the one here reported. It is not our intention to claim that this is the largest ever removed, as tumors of this variety have in days gone by been removed successfully, weighing as high as 130 lb.; while cystic tumors of the ovary have reached the almost incredible weight of 385 lb. So, while this tumor is not of such stupendous size and weight, still, it is of sufficient size to warrant reporting.

Patient was a colored woman, H.M., age 45, a native of Georgia, married, para 3. Menses began at 12 years of age, of the 28-day type, flowing 3 to 4 days, 2 napkins daily, no pain. All of her pregnancies terminated in miscarriages at about the third month, cause unknown. Twelve years ago, after her last miscarriage, her physician examining her, informed her that she had a tumor. A year later she began to be conscious of its growth, and since that time it has increased steadily in size. At no time has there been any change in her menstrual history, her chief complaint being the increasing size of her abdomen and shortness of breath.

Examination: Fairly well nourished, colored female, heart and lungs negative, urine shows a slight trace of albumen, no casts. Blood-pressure 120/75. Abdominal examination shows a tremendous distension, girth measuring 52 in. at the navel line; slight tympany over abdomen, with shifting dullness in both flanks. Vaginal examination: Mass filling entire pelvis and extending under ribs on both sides. There was a sensation to the examining finger as if the tumor was of a cystic nature, and on this finding a diagnosis of a cystic ovarian tumor was made.

Operation: Midline incision from navel to pu-



bis, under ether anesthesia. On opening the peritoneal cavity, a large amount of straw colored fluid escaped, not under pressure. The character of the tumor was then seen and the incision was lengthened to the ensiform. To the right side, and pushing the liver up into a narrow space, was a large nonadherent mass. By having one of my assistants push from the outside in an upward and inward direction, while we inserted our hand over and in back of the mass, we were able to deliver a large pedunculated mass (fibroid) which later showed a measurement of 36 in. in circumference and 27 in. from base to base over dome of tumor. This tumor was held by the assistant while a smaller mass on the left side and lying in the false pelvis was delivered by the same method. This tumor was elliptical in shape and measured 27 in. in circumference and 20½ in. from pedicle to pedicle. On the right side was another mass which was easily delivered, as we now had room to work. This tumor measured 18 x 39 in. In the true pelvis was another mass, an outline of the pelvis in appearance, and measuring 14½ x 28½ in. The uterus itself contained numerous small tumors scattered throughout the walls and a small pedunculated tumor far down in the cul-de-sac measuring 10 x 17 in. In all, there were 5 distinct tumors, all pedunculated. With 3 assistants holding these masses on one side or the other, a supravaginal hysterectomy was performed. The abdominal incision was then closed and woman returned to bed seemingly no worse off for her surgical experience. Convalescence was uneventful and she was discharged from the hospital 18 days after operation.

Pathologic report showed multiple fibromyomas with necrotic areas in the center of tumors. No signs of malignancy. Tumor weight being 52 lb.

The error in diagnosis is pardonable, we think, considering the size of the abdomen. The fluid encountered was due to irritation and had settled in the lower pelvis and gave the shifting dullness and the cystic feel. The tympany where we would expect dullness was of course due to the intestines being in front of the mass—a condition which is at times very deceiving.

## Communications.

### GROUP LIFE INSURANCE.

The Committee on Group Life, Health and Accident Insurance has been pushing this interest of the members of the State Society without interruption and with encouraging progress. The only reason for applicants not having already received their policies is the lack of the quota of 75% of the members but new applications have been coming in, and the time limit having been extended, we are assured of a conclusive proposition in the immediate future. This will be issued to the members individually in a few days, and is very gratifying.

If those who have applied will still further hold their patience (as they are doing splendidly) and if others will appreciate what a rare opportunity is offered them if taken at once, all will receive unprecedented benefits in insurance (a general Health and Accident policy for only \$70 a year, without, medical examinations, and not cancelable by the Company to the individual).

Signed

FRANK W. PINNEO,  
Chairman for the Committee.

## REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS CONCERNING MECCA COLLEGE OF CHIROPRACTIC.

(A letter from Charles B. Kelley, M.D., Secretary.)

The decision on November 26, 1926, of Judge McMahon in Newark, that he found the Mecca College of Chiropractic guilty of teaching medicine without obtaining a license from the State Board of Medical Examiners, as provided in the Laws of 1924, rounds out another phase of the effort of the medical profession in New Jersey to raise and maintain standards for teaching medical subjects.

At the request of the Executive Secretary of the State Society, and in the belief that the information will be of interest to the profession, the State Board of Medical Examiners herewith gives a resumé of the history of the Mecca College of Chiropractic at Newark.

The first question of the activities of this school was raised by the New Jersey Board of Medical Examiners in April, 1920. At that time, investigation showed this college to be operating with an incorporation under the laws of the State of Delaware. An official communication was addressed by the State Medical Board to the Commissioner of Education of the State of New Jersey, calling his attention to the operation of this college, and the Commissioner referred the matter to the Chairman of the Advisory Committee of the State Board of Education.

The Chairman of the Advisory Committee wrote to Mecca College on May 19, 1920, calling attention to the fact that they were "issuing degrees from the State of Delaware while doing business in the State of New Jersey" and calling attention to Sec. 297, page 230, New Jersey School Laws, 1918. That section provides "that any institution furnishing instruction or learning in the arts, sciences or professions conducted within this state, must file a certified copy of its certificate of incorporation with the State Board of Education, and obtain from the said Board, a license to carry on said business under such rules and regulations as said Board may prescribe".

They were not entitled to do business in New Jersey merely by reason of their incorporation in another state. The college authorities were also told at that time that if they wished a hearing before the Board, one could be arranged, but that if nothing was heard from them within a period of two weeks, such action would be taken "as we see fit in the premises".

Nothing further was heard from the Board of Education, so in October, 1920, the matter was again called to their attention, asking what action had been taken, and further, enclosing Mecca College literature of recent issue showing that they were still carrying on their business. This elicited the information from the Board of Education that they had, in the previous June, passed a resolution sending all the papers in the Mecca College to the Attorney General, for such action as he saw fit, and that on June 5 the papers had been so turned over to the Attorney General. They further stated that they were making inquiry of the Attorney General as to what action he had taken. He replied on November 5, 1920, that he would "at once proceed to take such action in the matter as is provided for by law".

As a result of this, the Mecca College sought a hearing before the Board of Education, which



was arranged for March 5, 1921, at which hearing the college was represented by former Judge J. Raymond Tiffany, of Hoboken.

On June 29, 1921, the State Board of Medical Examiners made further inquiry of the Board of Education as to what had been done in the matter. This letter was not answered until September 30, 1921, because of the absence in Europe of the Chairman of the Advisory Committee. The reply stated that the whole matter had been referred to the Attorney General in June, and the latter had replied asking for the names of any persons who could swear to the facts, and who could make the necessary affidavits.

On November 10, 1921, the Chairman of the Advisory Committee of the Board of Education, furnished the Attorney General's Department with all the papers in the case, including the college catalog. The college was publishing a facsimile of a doctor's degree purporting to come from New Jersey, though the right to grant the degree came from the State of Delaware. The catalog further stated that the college was licensed and registered in the State of New Jersey. This evidently was done to give the impression that they were licensed to grant degrees, whereas it only actually meant that they were registered as a corporation in New Jersey.

The Attorney General replied under date of November 21, 1921, stating that he must be furnished with the names and addresses of 3 or 4 students who had attended the college, pursued a course of instruction and received a degree or diploma.

The matter of obtaining this necessary evidence was one of considerable difficulty. Such evidence must come from students who had graduated from the college, and had received the diploma or license. It was impossible to have affidavits prepared in the absence of knowledge as to just what the testimony would be.

In this condition the whole matter rested until the winter of 1923, when the State Board of Medical Examiners, coöperating with the Welfare Committee of the New Jersey State Medical Society, under the Presidency of Doctor Eagleton, had introduced into the Legislature, a bill providing "for the licensing of schools and colleges conducted for the purpose of training or qualifying students to practice medicine, surgery or any method for the treatment of diseases, or any abnormal condition."

This particular bill was passed by the Senate and Assembly, and approved by the Governor, March 11, 1924, and provided that "no school, after September 1, 1924, could be conducted in the State for the purpose of training students to practice medicine, surgery or any branch thereof, without first securing a license from the State Board of Medical Examiners to do so." It further provided certain rulings as to facilities for teaching the subjects to be given.

It also provided that it would be necessary for the college to comply with the requirements adopted by the State Board of Medical Examiners for Class "A" Medical Colleges.

This law became effective September 1, 1924, and shortly thereafter, the matter was again brought to the attention of the Attorney General by the State Board of Medical Examiners. The attorney for the college stated that it was his intention to attack the law upon its constitutionality and that he would admit certain facts which the Attorney General would claim, and consequently, a "friendly suit" was agreed to.

However, the "friendly suit" never developed, and the State Board decided to obtain evidence for the Attorney General.

During the months of December, 1925, and January, 1926, 3 students were entered into the college by the New Jersey Board of Medical Examiners for the purpose of obtaining at first hand the necessary information regarding the conduct of the institution.

These students, who were each introduced to their respective class-mates after they had been at the college 3 days, as "Doctor", were given lectures on Osteopathy, New Science of Healing, Histology, Hydrotherapy, The Nervous System, Anatomy, Chiropractic, Chemistry, Iridiagnosis, Neurology, the Technic of Chiropractic Adjustments, Iridology, Embryology, and Chiropractic Adjustments and Naturopathic Cures for Diphtheria, etc. They were also given instruction in practical chiropractic and osteopathic adjustments practicing on one another.

The reason for the early bestowal of the title of Doctor was given as "in order that he may become accustomed to being addressed as 'Doctor'".

The case finally came up for trial in the Second District Court of the City of Newark on September 7, 1926, before Judge Cecil H. MacMahon; Mr. Grover C. Richman, from the Attorney General's Department, representing the State; and, former Judge J. Raymond Tiffany, the college.

Doctor Frederick William Collins, giving an address at 16 Gould Avenue, Newark, described himself on direct examination as being "Dean and President of The Mecca College of Chiropractic, incorporated under the Laws of Delaware, and registered in this State". He described the purpose of the college as training students to practice Chiropractic, and stated that the school has been in business since 1909, and is still active.

The subjects taught, he said, were Anatomy, Physiology, Histology, Pathology, Chemistry, Hygiene, Urology, Symptomology, Naturopathy, Theory and Practice of Chiropractic. His definition of Chiropractic, given in answer to a question from the Court, was "Chiropractic is the adjustment of the individual vertebra by hand to take impingement off the nerve".

He further stated that they had about 30 to 50 students each year, that they received practical training at a free clinic, but denied that chiropractic was the practice of medicine, stating that its purpose was to enable the organs to function normally, without the practice of surgery. He admitted however, that a misplaced vertebra was an abnormal physical condition, that chiropractic was only used in the case of abnormal physical conditions, and that the purpose of training the students was that they might practice chiropractic.

He said that the college had a 3 years' course of 6 months each, "covering all subjects necessary to be taught to cover chiropractic", and that it had an average of 10 to 12 professors all the time; but that the college had no license issued under the provisions of P. L. 184, before referred to, and that he had never applied for one.

On cross examination, Judge Tiffany brought out the fact that most of the Faculty of the College are licensed to practice in New Jersey, and that the college only gave to students "a certificate or diploma that they have graduated and taken a course of instruction in our institution", but that students, before they can practice chiro-

practic. must take the State Board Examination and comply with that Board's requirements.

Doctor Collins denied the use of dissection, or surgery in any of its branches. He said that he knew what the qualifications were for a Class "A" Medical College, having obtained his information from the American Medical Association Bulletin, but that he regarded some of the requirements for a Class "A" Medical College as unnecessary in the teaching of chiropractic.

He said they taught chemistry, the chemistry of the organs of the body, but required no work in pharmacy, or drug mixing, the only necessary knowledge of drugs being for the purpose of chemical analysis. They taught the detrimental action of drugs upon the human body, but they studied them for no other purpose, and used no medicine.

He admitted that the school possessed "osteopathic abnormalities", for the purpose of showing the appearance of the spine due to impinged nerves, for scoliosis, kyphosis and lordosis, etc., to the pupils, so that if they meet them when they are in practice they can correct them. He added, further, that "they are correcting them", and that he regarded such conditions as "abnormal physical conditions". To meet the requirements of a Class "A" Medical College would be impossible, and they would have to close "because it's not necessary for chiropractors to know all the things a Class 'A' medical school teaches".

Mr. Richman brought out the fact that in the opinion of Dr. Collins a knowledge of the detrimental effect of drugs is more important than a knowledge of the use of drugs, and that the students have a knowledge of the detrimental effect of drugs. The purpose, Mr. Tiffany had made clear, was "so that they will not use drugs, and not prescribe them, and advise patients not to use them."

Most of the activity against the college had been carried on during Doctor MacAlister's term as Secretary of the State Board of Medical Examiners. However, in September, when the case came to trial, it was necessary for me to appear as Secretary of the Board.

The attorney for the college seemed to lay particular stress upon that clause of the law which required that "the college shall not be licensed unless it meets the requirements of a Class 'A' Medical College". A transcript of the testimony before me shows that while "I know of no definite resolution to that effect, nevertheless, since I have been a Member of the Board, the Board has always regarded the 'Grade A' Medical College as the only acceptable school."

By "Grade A" is meant the grading of the Committee on Medical Education, of the American Medical Association, which grading has always been accepted by the New Jersey State Board.

Pages 219-229 of the requirements for Class "A" Medical Colleges, Abstract of Laws and Board Rulings Regulating the Practice of Medicine in the United States, revised July 1, 1926, were offered in evidence and accepted by the Court.

No further witnesses were called and the Court instructed both sides to submit briefs. This was early in September of this year, and on November 26, Judge MacMahon announced his decision.

The penalty provided by the act, is a fine of \$500. The matter now rests in the Attorney General's department and I presume nothing further can be done by the Board until the time for an appeal has expired.

## Current Events.

### MEETING OF TRISTATE MEDICAL CONFERENCE.

Atlantic City, New Jersey, December 4, 1926.

Those present at the meeting, which was called to order at 11 a. m. in the office of the Editor of the New Jersey Medical Society Journal, 22 Grammercy Court, Atlantic City, by Dr. James S. Green, President of the New Jersey Medical Society, were:

Representing New York: Dr. George M. Fisher, President of the New York Medical Association; Dr. Nathan B. Van Etten, Past-President; Dr. Frank Overton, Executive Editor; and Dr. Joseph S. Lawrence, Executive Officer.

Representing Pennsylvania: Dr. Harry W. Albertson, President of the Pennsylvania Medical Society; Dr. A. C. Morgan, President-Elect; Dr. Frank C. Hammond, Editor of the Atlantic Medical Journal; Dr. J. Moore Campbell, Director Bureau of Communicable Diseases; and Mr. Charles S. Pitcher, Superintendent Presbyterian Hospital, Philadelphia.

Representing New Jersey: Dr. James S. Green, President of the New Jersey Medical Society; Dr. Walt P. Conaway, First Vice-President; Dr. H. O. Reik, Editor of the New Jersey Medical Society Journal.

Dr. James S. Green: Gentlemen, it is a great pleasure for me to welcome you here as the representatives of the medical profession from the great states of New York, Pennsylvania and New Jersey, and I hope that our Conference will result in mutual benefit. If there is no objection, we will proceed with the program as outlined on the call for this meeting.

"The Qualification of Nurses, and the Regulation of Their Relationship to the Medical Profession", to be presented by Dr. Nathan B. Van Etten, Chairman of the Committee on Nursing, New York State Medical Society.

Dr. Van Etten: As a matter of fact, I haven't any paper. I have the honor to be the Chairman of a Special Committee on Nursing, of the Medical Society of the State of New York, have been interested in the study of the nursing question for several years, and have also the additional honor of being the Chairman of a Special Committee appointed by the Trustees of the American Medical Association to study the nursing question for the United States. You would think from all these qualifications, which I have related to you, that I know something about the problem but, as a matter of fact, I know very little about it and I have been very happy to come here today because I felt that I was coming to a group of men all of whom had studied this problem and who very likely would give me some information which would help to develop what we all so very much desire, and that is the provision of a fundamental nurse who will be of real service in the community.

We have all kinds of nurses, various sorts of special nurses, but we are trying to find the nurse for the man who is sick in bed. We want to start thinking about the patient and come to the nurse problem from the standpoint of the patient, not for the doctor nor the community, so much as from that of the sick man.

A resolution which was introduced in the House of Delegates of the American Medical



Association at Dallas created this Committee of which I am the Chairman. I will read that resolution as perhaps presenting the keynote of discussion which I would like you to follow.

**"RESOLVED,** That there is great need throughout the country for a basic trained nurse and that all pupil student nurses shall receive basic training, in training schools, in hospitals giving courses of 2 years. The curriculum shall be definitely revised so as to provide bedside instruction, class room instruction and demonstrations, and, above all, the teaching of the art of nursing by precept and example so as properly to fit the pupils or students for their work as nurses in the hospitals and in the home. Graduates after passing the state examination should be registered as trained, or, if preferred, registered nurses. Such trained or registered nurse may become public health or other special designated nurse after being properly admitted to postgraduate schools for nurses and passing a required examination.

**"RESOLVED,** That the Board of Trustees appoint a Committee on Nursing to investigate and report to the next House of Delegates the results of its investigation and constructive fight on the nursing question, and especially on the subject of increasing bedside nurses throughout the several states. The Committee on Nursing to be empowered to confer with the National Nurses' Organization, hospitals and other organizations having similar objectives."

Now that is the Resolution under which my Committee is constituted and that is the sort of thing I am very anxious to get information about from the gentlemen here today, as to just how we are going to accomplish the desired result.

I will briefly present a few points as introductory to some questions that I want to ask you. I saw in the New York Times this morning, as I came down on the train, a little editorial on "The Science of Nursing". I will present 3 viewpoints that have come up within the last few days. This is an editorial regarding the public sentiment on this question possibly:

"Doctoring and nursing, the latter particularly, have acquired great dignity of late years. A doctor, of course, was always an important member of a community, especially when he combined the attributes of priest and healer. Something of the old union of physical and mental medicine man in one person is found again in our modern psychiatrist, and his assistant, the nurse, shares to a large extent his knowledge, experience and position.

The appointment of Miss Effie J. Taylor, as Professor of Psychiatric Nursing at the Yale School of Nursing, emphasizes the high esteem in which the profession is held by scientists as well as by the public. The old-fashioned rule-of-thumb-methods have gone into the discard. Understanding of the causes and treatment of mental diseases has reached a point that makes a 2 or 3 years' training period necessary for prospective nurses. Yale has abandoned the old apprenticeship method of training, and concentrates on an intensive educational system.

One would like to know what that excellent old nurse, Mrs. Sairey Gamp, would have said to a professorship of nursing. Her husky voice and moist eye would doubtless have been rougher and wetter than ever as she uttered her disapproval. And if necessary she would have reinforced her opinions by liberal quotations from her authoritative friend, Mrs. Harris.

The next thing I want to present to you is a report dated November 1, 1926, of the Special Committee on Nursing of the Medical Society of New York. The important points were raised by doctors and by nurses and by the laity.

#### **Report of the Special Committee on Nursing Medical Society, County of New York, 1926.**

The matters coming within our province have been much discussed by individuals and considered by committees representing various bodies for some years past and numerous articles and reports have appeared relating to them. Some of these committees have had paid help or organized staffs and some of them, notably one representing several national medical and nursing organizations, are still functioning. We concluded that no purpose would be served by going over this same ground, but believed that a concise statement of the issues raised, facts developed and remedies suggested for the perusal of the membership would be of value. We have, therefore, ourselves attended meetings, sought information on the subject and had a review made from all available sources and offer the following:

#### **Important Points Raised.**

##### **By doctors**

Supply of nurses inadequate.

A demand for several grades of nurses to meet varied requirements and means of patients.

Lack of spirit of sacrifice and service on part of nurses.

Requirements for applicants too high, course too long, curricula too elaborate, not appropriate, examinations absurd.

Nurses overeducated, so overstep proper limitations and have distaste for, or refuse to discharge, more homely duties of position. Often an added burden in household of sick person.

Nurses not practically educated.

Rate of pay so high persons of moderate means cannot afford the service they ought to have.

Nurses refuse 24 hour duty and pick and choose types of cases they will accept.

Commercial registries practice deception as to qualifications and character of nurses supplied.

##### **By nurses**

Any inadequacy of supply due to fact nursing no longer competes economically with alternative positions and careers.

The graduates from nursing schools today are superior in all respects to those of the past and the complaints as to spirit of service, 24 hour duty, overeducation, etc., come from persons who forget that the ideas and standards of 25 years ago are gone forever.

Financial reward on whole meager—few executive, hospital, public health, and teaching positions well paid; "specializing" in good hospital quite remunerative; charge nurses in hospitals fairly paid; most private duty nurses earning poor annual pay; salaried nurses only better off than last because of hours, conditions of work, continuity of employment, sick benefits and pensions.

Hardly any hope of providing for later years.

Increase in pay since war has not equalled increase in cost of living or increases in other lines of employment.

Aside from pay, nursing contrasts unfavorably



with other competitive occupation because it requires longer training; by the hours of work, it destroys social life; its continuous work is unhealthy, and uncertainty of and interrupted work is demoralizing and unprofitable; the conditions of work including status in household are unpleasant to offensive, and community life in institutions appeals only to limited numbers. Except in salaried positions all vacation, sick and other lost time is at expense of individual. As years pass, opportunities except for few retrogress rather than improve. There is no advancement, the recent graduate being on a par with or preferred to those with years of service.

Despite attempts at state registration and license, there is still looseness to chaos in nursing field and the qualified nurse must meet unfair competition.

Nurses exploited by private registries.

Doctors have by organized effort raised standards of medical education and licensure and greatly improved conditions of work even for general practitioner, and have raised scale of fees; nurses are only striving to do same, with emphasis at present on first of these.

#### Facts Developed by Various Investigations.

Only really acute situations seem to be: (1) Cost of adequate, competent nursing service to persons of moderate means. (2) Lack of pupil nurses in smaller hospitals.

Number of applicants for training in other than R. N. courses is small (two grades licensed by state). Whether this is due to small difference in requirements, great difference in advantage to pupil on graduation of superior rating, or that there is not enough fixed demand for persons of lesser personal and professional qualification to attract larger numbers is not determined. Probably all contribute, and attitude of applicants, nursing schools, medical profession and public combined toward this problem has led to small development of this field.

Whether standards as set now (for instance in New York State) are too high by no means agreed even among doctors. Some states have higher requirements than ours and refuse to license New York graduates.

Some revision of curricula and examinations desirable to make them better fit the objects in view and remove just cause of criticism.

Yale school of nursing and similar movements do not touch broad questions involved but aim on own statements only to train executives, teachers, and the like.

Social and working conditions have probably as much or more to do with adequate supply of nurses as question of pay.

The attempt of smaller hospitals to run training schools is futile under present requirements. There is a large loss of graduate nurses by marriage—a lesser loss by transfer to other more attractive occupation.

Nurses under present conditions prefer salaried positions to private duty. There are large numbers of total registered employed by public departments, hospitals, visiting nurse organizations, other private and semi-public associations, in industrial work, as office assistants, etc.

The demand for and adequate supply of bedside nurses is most seriously influenced by season and prevalence of illness with periods of shortage and oversupply.

There is a considerable amount of use of nurses even in times of stress in luxury service.

Private duty nurses by and large, even in New York City, make only a moderate living on an annual basis.

It is questionable whether there is really a demand for nurses of lesser qualifications or for the present type at a lesser price.

Central registries under professional control, where started, have been found advantageous to nurse, doctor and patient.

Training schools in the, and such institutions are desirable and their problems should be given careful and sympathetic consideration.

#### Suggested Solutions.

Basic simplified course of training of shorter duration, with provision for advanced training and training for special service.

Group nursing by which nurse's time is better used, with shorter hours and larger remuneration to her and lessened cost to patients.

Hourly nursing with same objects.

Intensive effort to properly and adequately develop training and use of other than most highly qualified nurses.

Multiplication of professionally controlled non-commercial central registries.

Your committee having studied this material makes the following observations:

In the solution of this problem it is well to keep in mind that the matter is not being considered de novo but that the framework of whatever settlement is finally reached has probably already been erected beyond prospect of taking down.

Nurses today are a numerous, intelligent, well-organized, responsible group recognized as an independent profession by law.

Any decisions which the medical profession takes must recognize these facts or there is no hope of their being put into effect.

The trend, and rapid trend, of American standards of living is away from such hours and conditions as now surround bedside nursing. The medical profession would do well to take an advanced position in this matter.

The only source of nurses, in the last analysis, is young women who will voluntarily take up the work because all things considered it offers an attractive career or return in comparison with other opportunities.

So long as there is no rapid fall in present-day money standards, the prospect of securing any large supply of nurses of minimum acceptable personality, education and training at sufficient reduction from present rates of pay to be of any consequence is nil under present conditions.

Keeping these things in mind we endorse the solution noted above, as the only reasonable one which has thus far appeared. These points only cover a part of the problem.

Some further progress might be made by widely popularizing such courses as that of the Red Cross Home Hygiene and Care of the Sick, and using to a much greater extent the services of those so trained.

We recommend that the Committee on Nursing of the County Society be continued to further study the question.

Respectfully submitted,

Edward S. McSweeney, M.D., Chairman;  
James G. Dwyer, M.D.;  
Harbeck Halsted, M.D.;  
John J. McMahon, M.D.;  
Louis Fischer, M.D., Secretary.

Now in the light of this sort of presentation from the press, from the laity, from educators and from committees appointed by medical societies to investigate such questions, our committee is very anxious to get an opinion from a large number of representative men from all over the country upon what would constitute a **basic nurse**. I have prepared, with the help of our Executive Officer, and of Dr. Harris of New York, and others on our committee, a questionnaire which I have sent through the country, and I would like each of you to have a copy of this and to study it and to answer any of these questions that you can today. We are just beginning to receive some replies:

**Preliminary questionnaire sent to members of the Committee on Nursing.**

- (1) Is there a shortage of nurses in your part of the country?  
Is it as acute as it was 5 years ago?  
What is the reason for it?
- (2) What proportion of the nurses graduating from your hospitals become permanently located in the vicinity or continue as nurses?
- (3) What has been the average annual per capita cost of conducting your training schools during the past 5 years?  
How many girls have been in training during that time?  
How long in training?  
Are the classes full?  
How many fail to complete the courses, and why, and at what period of training?
- (4) Can you estimate the monetary value to the hospital of the service rendered by the students?  
Can you estimate the number of hours of actual bedside service during training rendered by pupil nurses?  
What is the percentage of time given to class room and study?  
How long is the period of training in your hospitals?  
Would you recommend readjustment of relative amounts of didactic and practical training?  
How?
- (5) What should be the minimum requirements for entrance to a training school?
- (6) Are you satisfied that the curriculum recommended by your State Department of Education is well adapted for properly training bedside nurses or for teaching the art of nursing?
- (7) How much school time is needed to develop a bedside nurse?  
How much time for practice?  
How much time for theory?
- (8) Give reason why more time should not be given to teaching the pupil the art of nursing by demonstration.
- (9) What is the smallest hospital, rated by number of beds, that you would consider competent to graduate the basic nurse?
- (10) Do you think a basic nurse can be graduated in 2 years or less?  
Do you think 3 years necessary to develop the basic nurse?
- (11) Do you consider the training of the basic nurse also a preliminary necessity for nurses who practice specialties such as Public Health, Social Service, etc.?

I suppose you would like to know what kind of a definition I might have in my mind of the **basic nurse**. I just formulated this as a definition: "The basic nurse is a graduate who has completed the hospital training school course in the theory, practice and art of nursing in 2 years and is fitted to nurse patients either in a hospital or at home". I will be very much indebted to you gentlemen if you will discuss this matter fully, and I am very delighted that Dr. Reik has stenographers here who will take this down. I hope I will get a copy of the discussion which I am sure will be valuable in the advancement of the study of this question, not only in New York but all over the country.

The discussion of this topic was continued by Mr. Charles S. Pitcher, Superintendent of the Presbyterian Hospital, Philadelphia, Pennsylvania, as follows:

I am certainly pleased to be here with you. I don't know that I can add anything to Dr. Van Etten's paper for he has gone into the question so thoroughly.

The paper I am submitting is written not only from the hospital superintendent's viewpoint, but from that of the doctors and nurses who have been associated with the hospital for 35 years, so I should be more or less unbiased in my opinions.

**The Qualification of Nurses  
and  
Regulation of Their Relationship to the  
Profession.**

Charles S. Pitcher.

The subject under discussion is occupying the minds of many physicians and nurses, and we have considerable literature on the subject which has been published in different forms, both by leaders in the nursing world and by members of the medical profession.

A study of this literature by one who is neither a physician nor a nurse, but a hospital administrator, is likely to produce much confusion of mind.

The ideas which I express are not entirely mine, but are ideas and reactions produced by observing physicians and nurses for many years in their work, and reading and listening to their comments. Nurses make almost the same criticisms of their profession as physicians do of theirs, and some ideas of both groups may be unsound.

A consideration of the history of medicine and nursing shows that there is accord on certain points. I quote from "Outlines of Nursing History" by Goodnow:

**"Summary of Important Points"**

"Florence Nightingale, Lister, Pasteur, Koch, Semmelweiss, Holmes, Simpson, and Morton belong to a group that was nearly contemporary, and who did more than all their predecessors to put medicine, surgery, and nursing on a scientific basis.

"Lister invented antiseptic and aseptic surgery. He first used the buried ligature, chromic catgut, and rubber drainage-tubing.

"Pasteur was the originator of the germ theory of disease, found the causes of contagion of all sorts, and developed a cure for rabies.

"Semmelweiss and Holmes taught the contagious nature of puerperal fever, and advocated cleanliness for its control.



"Koch worked out the whole science of bacteriology and of modern laboratory methods. He discovered the tubercle bacillus.

"Sir James Simpson introduced chloroform as an anesthetic, and W. T. G. Morton introduced ether."

The story of the whole group of persons is so closely interwoven that some think it can rightly be told only as one narrative. At every step of the way, nursing was modified and new demands were made upon the women who cared for the sick.

Sir William Osler's introduction to "The Life of Pasteur" by René Valléry-Radot shows in a succinct manner the great advances which have been made in the field of medicine through the work of Pasteur and his co-workers and contemporaries. In the "Outlines of Nursing History" we find:

"These men were contemporaries of Florence Nightingale, and her work fitted in with theirs in a marvelous way. They reshaped nursing practice; she reshaped the nurse. They revised, improved, and elaborated methods; she gave them nurses capable of carrying out the new methods. They invented a new technic; she produced women who could be depended upon to carry out that technic."

"It is important to remember that trained nursing is still in a formative stage.

"In 1883, after 10 years, there were but 22 schools for nurses. In the 90's they multiplied rapidly. In 1911 there were 1100 schools reported, and the number was doubtless considerably greater."

A nurse leader with whom I was discussing the question of the present status of nurses emphasized these points:

"First, as to the qualifications of the nurses, that they must be qualified to meet, not only the demands made upon them by one particular city or one particular group, but they must be prepared to meet the demands made upon them by society as a whole.

"As to the regulation of their relationship to the profession, I believe the doctors should begin to think in terms of nurses as citizens, and therefore, having a responsibility to society from the standpoint of citizenship; their relationship to the profession of medicine will be very much the same as their relationship to all of the professions, inasmuch as one can honor a profession or its responsibilities just in so far as the profession or its responsibilities are worthy of honor. That is true of the nursing profession, of the medical profession or of any profession."

There is a grading committee now at work for the purpose of grading the training schools of the United States in much the same manner, I understand, as hospitals have been graded by the American College of Surgeons and the American Medical Association. The Secretary of this Committee, Mrs. May Ayers Burgess, Ph.D., who is directing the study, is not a nurse. The Committee represents all groups interested in the matter of nursing. The following is the personnel of the Committee:

#### American Medical Association.

Dr. William Darrach, Dean, College of Physicians, Columbia University; Dr. Winfred Smith, Director, Johns Hopkins Hospital.

#### American College of Surgeons.

Dr. Malcolm MacEachern, Asst. Director,

American College of Surgeons; Dr. Allen Craig, Asst. Director, American College of Surgeons.

#### American Hospital Association.

Dr. Joseph Howland, Supt., Peter Bent Brigham Hospital, Boston, Massachusetts; Dr. William Walsh, Executive Secretary, American Hospital Association.

#### American Nurses' Association.

Miss Helen Wood, Director, School of Nursing Education, Rochester, New York; Miss Susan Francis, Superintendent, Children's Hospital, Philadelphia, Penna.

#### National League of Nursing Education.

Miss Elizabeth Burgess, Assistant Professor, Nursing Education, Teachers College; Miss Laura Logan, Dean, Illinois Training School for Nurses.

#### National Organization Public Health Nursing.

Miss Katherine Tucker, Supt. Visiting Nurse Society, Philadelphia, Pennsylvania; Miss Gertrude Hodgman, Asst. Prof., School of Nursing, Yale University.

#### American Public Health Association.

Dr. C. E. A. Winslow, Prof., Public Health, Yale University; Dr. William Walsh, Executive Secretary, American Hospital Association.

#### The Public and Educators.

Mrs. Chester C. Bolten, Cleveland, Ohio; Prof. Henry Suzzallo, Pres., Washington University, Washington State; Dr. Samuel Capen, Chancellor, University of Buffalo; Dr. Edward Fitzpatrick, Dean, Graduate School, Marquette University; Dr. W. W. Charters, Prof. of Education, University of Chicago.

I doubt if there is anything more the matter with nursing than there is with other things to-day, and I often think that there would be fuller coöperation and better understanding between the doctors and the nurses if each group carried on its work in a systematic and thoroughly organized manner, which would make each group more dependent on the other. To aid in bringing about this condition I have in mind the recommendation of the American College of Surgeons concerning Staff Meetings.

The American College of Surgeons has recognized the fact that the standards of hospitals should be improved. In its Bulletins for 1925, two notable articles were published concerning Staff Conferences, as follows: In the April number, "Standardizing Staff Conference Procedure", by Robert L. Dickinson, M.D., New York, Senior Gynecologist and Obstetrician, Brooklyn Hospital. In the July number, "Staff Conference Demonstration" by the Combined Staffs of St. Catherine's and Greenpoint Hospitals, Brooklyn, New York, directed by Frank D. Jennings, M.D., F.A.C.S., Brooklyn.

A well organized school of nursing should have carefully thought out nursing procedures which are understood by the physicians and ordered by them in the treatment of their patients, for by this method the physicians and surgeons know that in each department of the hospital, unless otherwise ordered, the standardized procedure will be followed.

It is the belief of a number of hospital administrators that with a standardized staff meeting such as is recommended in the articles mentioned, and with standardized nursing procedures, the care of patients would be so well understood that there would be better and more harmonious relations between the physi-



cian and the nurse, the patients would be better cared for, and the standards of medical and nursing care would be improved, since the responsibility for any mistakes could be placed on which ever group was at fault.

Some members of the hospital visiting staff make a deep impression on the interns and nurses through their willingness to explain the condition and the treatment of patients. Interns are anxious to be on their services and nurses are delighted to care for their patients. If this practice were more generally followed by physicians I believe there would be less complaint of inattention of interns and nurses than we have at present.

There are a great many phases of the subject which we have under discussion, "The Qualification of Nurses and Regulation of Their Relationship to the Profession", and I believe that the subject should be approached in a spirit of coöperation and confidence in each other as co-workers, and that inasmuch as the nursing education concerns the public and the medical profession as well as the nurse, we should all be very open-minded and willing to wait for the suggestions of the Committee on Grading Training Schools, which represents all groups interested in the matter, rather than for any one group to start some venture which can at best only confuse the final issue.

There were several things which Dr. Van Etten mentioned in his talk. Without any doubt the nursing profession on private duty work is unorganized, unsupervised, outgrown, and there is a great deal of waste in nursing skill. I think that is conceded by nurse leaders. It is known that irregular employment and uncertain employment is what keeps the salaries of the special nurse down. We had a meeting some 3 years ago in Philadelphia of the representatives of the medical society and the nursing profession. I was there representing the Philadelphia Hospital Association and they estimated that the average nurse's salary was about \$1200 a year, and that a nurse was probably not employed more than 70-80% of her time. The suggestions which have been put forth for a central clearing house for nurses are a very good thing, I think. You will find the whole-time duty nurses in a hospital will fight that to the limit because they want to nurse in one particular hospital, but I think it is a mighty good thing. I think organized hourly service is a good thing, and I think such nursing in hospitals is a good thing. Some doctors opposed it, the nurses opposed it, and I think the only way it can be worked out is through the hospital hiring these group nurses and paying them, and charging it on the patient's bill, because you cannot get any 2 or 3 or 4 patients to agree that they will pay so much to the nurse. I think that would solve quite a lot of difficulties resulting from shortage of nurses.

The nurses may think that will cut down their opportunity for work. I think it will, on the other hand, give them assurance that they will receive a certain salary. I know one hospital in Chicago where they have 2 nurses whom they pay themselves and whom they send out into the community.

Dr. Van Etten: Are they follow-up nurses?

Mr. Pitcher: No. They are sent to homes where the family cannot afford a whole time nurse. Dr. Baker, of the Presbyterian Hospital, is the organizer of the movement. I think these nurses will receive more remuneration than they do at present, although the nurses themselves do not

think very well of it, and I feel that their time will be more fully occupied.

In order to get these things done we must first get the doctors to agree to have their patients have group nurses, then get the nurses to agree to do group nursing in this manner, and I think the hospitals can take care of this by hiring the nurses and charging it to the patients. I think we may have some such group nursing at our hospital, and I believe it is a very good thing.

Dr. James S. Green: We are all very much interested in this discussion, and I hope we will have more expressions of opinion, especially on the subject of the group nursing. In my hospital in Elizabeth it is a common sight to see on the private floors, after the patients have been given their breakfast and been washed and cared for, the nursing force sitting around knitting and reading books until the time for the next meal to be served. It is a great waste of the time and money of the patients. But we see that the nursing association has come out flat-footed against group work. If we can get some suggestion as to how this can be put over it will be of great benefit. I hope this discussion will be rather general.

Dr. Van Etten: I think it is a very fine thing to be able to talk about these matters in a small group like this.

Dr. Green: A patient of moderate means who thinks he must have a private room cannot afford some of the special nursing charges and I think that question would be solved to a certain extent by the group nursing, and it would also give the nurses more continuous employment, as Mr. Pitcher has said.

Mr. Pitcher: As has been pointed out, the nurse goes on duty at seven o'clock, takes care of the patient and then has nothing to do until time to serve the next meal. Here is another thing that I have observed, and others have called attention to it too: It is stylish to have a special nurse and therefore the patient must have one whether she needs her or not. I wonder if the doctors could in some way get patients to discharge their nurses earlier? We may have a very ill patient in the hospital, and usually, if the doctor will ask his patient to release her nurse to go to the patient who so badly needs one, she will flat-footedly refuse. I don't know what you can do but there is an awful lot of nursing ability that is going to waste.

Dr. Overton: May I ask what, specifically, is group nursing?

Dr. Green: As I understand it, it is an arrangement by which a nurse looks after 2 or 3 or 4 patients in the private rooms just in the same way that we expect a nurse in the ward to look after 4 or 5 or 6 patients and it can be done, in my opinion, just as well as in the wards. But the patients will not, of course, have a nurse constantly sitting at the bedside.

Dr. Overton: I thought it might mean there would be a psychiatric nurse, a gynecological nurse, etc. It means, then, a nurse for a group of unrelated patients.

Dr. Frank C. Hammond: A few points have appealed to me very much. So far as Pennsylvania is concerned, I think the feeling is that the hospitals have their quota of nurses, although some institutions have a shortage owing to inability of the Trustees to provide suitable housing facilities for the training schools. There is not a shortage per se, but there is a shortage in housing facilities.

What is the percentage of time given to class room and study, is one of the questions asked here: That would come under the subject of curriculum.

Are you satisfied that the curriculum recommended by your State Department of Education is well adapted for properly training bedside nurses or for teaching the art of nursing? Personally, I think the whole question of curriculum should be revamped. I think we carry to an absolute absurdity the curriculum required for the nurses, in Pennsylvania. They are required to have 16 or 18 hours for laboratory work in chemistry. I cannot for the life of me see why a nurse's training school requires that number of hours devoted to chemical laboratory work. I cannot bring myself to that viewpoint. There are other didactic studies required that seem to me to be entirely out of place in a nurse's curriculum. I have talked this over and the nurses seem to feel that it is an absolute necessity for completing the education of a nurse. You will find, if you will look over the final examination questions that are submitted to the nurses in many of the hospitals in the State of Pennsylvania, that medical students would have to sit up and take notice to be able to answer them. I say that advisedly, because I have gone carefully over them. They are absolutely out of place so far as nurses are concerned.

Whether we are at fault as members of the Staff in trying to make doctors out of nurses, or whether this has been forced upon us by the Board—I think there is the problem. We want to keep our nurses' training schools approved by the Board, and they come around with their inspectors and set up certain requirements. In order that we may not fall down, we try to live up to these high ideals and I think I can truly say that this failing on the part of our Staff in regard to the curriculum is an absurdity. The requirements are so absolutely over the heads of the nurses and, as I said, the final examination questions would be appropriate only for medical students.

Regarding the lectures on psychology, Pennsylvania requires 8 hours of psychology. A member of the Board with whom I talked said that she would rather see the entire laboratory course in chemistry wiped out than to have the lectures on psychology omitted. Her feeling was very definite that nurses should know something about psychology. She felt that 12 to 14 hours should be devoted to that subject. We have had a great deal of discussion in the hospitals concerning what appeared to be the absurdity of the course of lectures on psychology, but my feeling is, from a general discussion with many of the hospital administrators, that the curriculum should be revamped.

There is another question: So far as the State Board of Medical Examiners is concerned, any one who is a Dean in the Medical School cannot be appointed to the State Board of Medical Examiners, yet you would be surprised to find the number of states where the Directress of Nursing is on the Board. Now it seems to me that if there is a basic motive back of it, if the Deans of the Medical Schools would possibly use their position to foster getting through the graduates of their own schools, why would not the Directress appointed on the Board do the same thing—not that we would impugn invidious motives.

I would like to ask Mr. Pitcher about the question of board for the special nurses in the

hospital. A man who is taken sick nowadays and goes to a hospital must be a pretty rich man. He is charged so much for the room and the operating room, a special day and night nurse; then there is a charge for a lot of unnecessary laboratory work; all of which adds to the expense of the patient, and our chief interest is for the patient. The day nurse requires \$35.00 a week and many of them require \$12 to \$15 more per week for board, depending upon the hospital. Then there is so much for the night nurse and her board. What does Mr. Pitcher think of the rule, that so many institutions have that day nurses and night nurses get their 3 meals a day at the hospital? Take many men in employment who get the same wages; they get their breakfast at home, carry their luncheon and get their dinner when they get back home. I cannot understand why it is that special nurses should expect the patient to pay for their 3 meals. When you have institutions where it is against the rule to have a 24 hour nurse, but must have a 12 hour nurse, I have often wondered what the condition would be where you would have an 8 hour nurse and have to feed the 3 nurses 9 meals. I do not know just why that is. Possibly Mr. Pitcher can give us a little light on that.

Question II. "Do you consider the training of the basic nurse also a preliminary necessity for nurses who practice specialties such as Public Health, Social Service, etc.?"

I should say yes, personally. It seems to me that she should know the question fundamentally, from the ground up. So far as the revamping of the curriculum is concerned, there is one thing that appeals to the administrators of hospitals, and that is the percentage of time given to class room and study in the hospital. We have a great deal of difficulty with the superintendents of nursing in trying to get the head nurse to adjust her nurses, to take them from a case and put them for an hour or so to fill in an emergency gap. The argument is that they must have a certain amount of time in this or that and they could not be allowed to leave to meet an emergency on another floor. That seems an absurdity, but what I am leading up to is this: When you stop to consider the time that a girl takes off for her breakfast, lunch and dinner and for off-duty a couple of hours to get fresh air, and the amount of time she is in class, you will be surprised to see in a general way the exact time that she gives to the institution compared to what they gave 10 or 15 years ago.

The State Boards are forcing this requirement. Sometimes the nurses have to leave the institution and go 3 or 4 miles to get the laboratory work or other special instructions that properly belong to the curriculum that must be met. It seems to me that the time has arrived when we on the medical side should try to coöperate with the public in guiding the nurse and bringing her back to a state of normalcy.

Dr. A. C. Morgan: The thought appeals to me in this manner: Is it the doctor, is it the nurse, or is it the public that has demanded or required the increase in educational standards of nurses? Is this a part of the ill effects of the wild educational propaganda that was advocated by the Association of American Medical Colleges 25 years ago, and that then came over on to the American College of Surgeons, and is now being discussed by the American College of Physicians? Is it an aftermath of the educational mad wave that went across the country, that succeeded in



medical circles in eliminating so many medical institutions of varying degrees of excellence or the reverse, so that we have dropped from 140 medical educational institutions in 1900 to only 80 medical colleges now? Of these 80 schools, 10 give only 2 years educational course; 10 of them do not attempt to give any clinical work. That has caused a considerable damming of the works with regard to medical circles and to the problem that has become acute as to the need for physicians, especially in the country districts. Is this an aftermath, or is it a by-product of that move that started years ago? Did the doctors years ago demand, *pari passu*, that as medical students should be trained to such a high degree, the nurses likewise should be trained to the same extent? If so, then the doctors are to blame because I think that the consensus of opinion throughout the country now is that they aimed too high; they bit off more than they could chew, and now they are beginning to revise many of their older idealistic views with regard to medical education, and at least they are not insisting on any further requirements as to higher education, whether premedical or medical education for the doctor. Are we facing the same condition of affairs in the matter of nursing? Were the demands and the requirements placed too high 25 years ago or 20 years ago, and too high an idealistic pace set by those who had to do with the nursing, so that the nursing profession is suffering in the same manner as are the medical men? If so, then the medical profession is at fault. They are to be criticized and now the house is falling on their own heads.

On the other hand, is this demand for a higher education, and is this present arrangement of nursing education an outcome of the recommendations of the women themselves who are in charge of nursing boards? Or of the doctors who have been in charge of nursing boards? If it is chargeable to the women who are the leaders in the profession of nursing, whether national, state or local, then we feel that they in turn are suffering because of the wrong example set years ago by those men who aimed too high.

Is it the public that requires this matter of higher education on the part of nurses? We think not. The public can be trained readily by any group of men or of women in any sphere or phase of public health; they can be informed about things medical, about nursing, about public health, about civic improvement, and the like, because there are so many organizations today that offer opportunity for the development of any special line of thought or of work, even I might say for some of the cults and fads. I believe the public has not been a factor here except in that thought about group nursing. We all are tainted with human nature, some more so, as David Harum said. People who go to a hospital demand much. A woman's calendar is said to date before and after operation. Her life was in the negative phase before an operation; after operation it assumes a very positive phase. They demand certain things when they go to a hospital and that policy which is inherent among the deadlier of the species has a good deal to do with the demand for individual private nursing. We have found that men are willing to have a nurse serve 2 or 3 of them but that the women will not submit to that. I can see readily how group nursing can be established and applied and made to work successfully in every hospital if it is ap-

plied to the system of nursing in the semi-private wards. Let that be the starting point and let it be understood that because the man or woman is in a semi-private room rather than in a private room, he or she is supposed to share the duties and the time of that nurse proportionately. Let that be well worked out and demonstrated and it can be later applied to the more expensive rooms. But let it be understood that by their acceptance of those lower priced rooms they must also permit group nursing to be conducted on that floor.

I have in mind one hospital that has one suite of rooms that are magnificent. A person who can afford to pay the price of the rooms in that suite can naturally afford to pay for a private nurse, and would demand it. But in that same hospital there is another wing, older, not nearly so cheerful in appearance, nor higher in price, and there the person of moderate means could be educated to the matter of group nursing. I am in favor of it.

With regard to the scarcity of nurses and of candidates for education in nursing, I think that the demand is less acute than it was 5 years ago, when we were still suffering from the great number of men and women who were in Governmental employ and who have since been discharged and made available for other positions and other purposes.

As to whether or not a girl should have a greater preliminary education than before, I think she doesn't need the greater preliminary education; but, on the other hand, I feel that the girl should continue in her educational development until she reaches the age when it is proper for her to assume the duties of a pupil nurse, and that is the age of 18 as a minimum. Girls enter high school on an average at the age of 14. If we require only 1 year of high school, that would make the girl available, so far as educational requirements were concerned, at the age of 15 or 16. If that girl goes out into business for a couple of years, after reaching the age of 18, with the previous education that she had sufficient to meet the State Board requirements, she will have been attracted to business or diverted from the thought of nursing with the result that there would be a scarcity of pupils along that line. However, if we still have that minimum of 1 year high school, but with the recommendation to the girl that she shall continue along the line of educational development until she reaches the age of 18, we will get better women as nurses and they will be better trained.

I approve of Dr. Van Etten's description of a basic nurse, especially as regards the 2 year course. I feel that we can well train a woman in 2 years' time to be a nurse—not to be a technician, not to be an executive, not to be a creature of superior education, but a real trained nurse.

Dr. George M. Fisher: The State Medical Society of New York has been laboring with this question for the last 2 years. Dr. Van Etten has been very active in the work. Personally I have not entered upon the question as I would upon some others. I believe that when you appoint a Committee of your State Society it is well to leave the subject entirely to them. But I am convinced, as the last speaker just said, that there is not a scarcity of nurses now such as there was 5 years ago. Perhaps this is because I am located in a community in which we have a large number of hospitals. In Utica we



have 5 hospitals, with 4 training schools, and in the territory surrounding, 4 more, which gives us a large number of nurses.

There is one thing that has been brought to my attention, more especially perhaps on account of a personal matter. I had a niece 16 years of age who took up nursing. It was contrary to my belief that a girl of that age should enter into nursing. I am of the opinion that a girl should be 18 years of age before she takes up the study of nursing, for 2 reasons: In the first place, the girl is to be considered, and in the second place the public is to be considered. You cannot take a girl of 16 and say that she is mature, and when she comes out at 18 with a minimum of professional education, she is not the person to meet every emergency. Then there is her health to be considered. The training is hard and many a girl has broken down before the time of her full development has arrived and ever afterwards has been a disappointment to herself, for the result is that she has not been a success.

I have looked over this questionnaire that Dr. Van Etten has given us. There are a lot of things I would want to sit down and study before I felt that I was able to speak about it. It would seem to me that the arguments that have been brought out here are enlightening to all of us and the work which the Committee in the State of New York is doing is gradually arriving at the point where there will be something substantial and concrete to offer. Personally I would not like to present any ideas which might confuse the matter or give any misrepresentation of the position which I hold in the State Society.

Dr. Harry W. Albertson: This matter has been one of very great importance to me for many years. Some years ago, in the Medical Society of the State of Pennsylvania, a special committee was appointed by the Board of Trustees to study this particular question. We gave a good deal of thought to the subject of nursing and we got not very far for our pains. As the paper was read by Dr. Van Etten and as the discussion has gone along, I have jotted down a few points. The first one I have here is simply this: What is it all about? Doctors created the nurses for their assistance. To my mind the nursing situation has outgrown the doctor. We are no longer able to control, to teach and to guide these people in the way that we formerly did, nor in the way that we should today.

The salary of the nurse, as found in a survey that I made of my own hospital with a number of nurses of several years' graduation and still in service, is much smaller than as stated by some one here. I was able to get in close touch with the girls whom I have assisted in training for a number of years and I found that the average salary amounted to but little more than \$800 a year, counting their time off waiting for cases, etc. That was the total income, averaging it up over a long period of time. Certainly it was not a sum sufficient to induce girls of the proper type and proper spirit to take up the work. We are demanding too much for the little that they get out of it.

The caption of Dr. Van Etten's paper was supposed to be "The Qualification of Nurses, and the Regulation of Their Relationship to the Medical Profession". I want to leave some of these things and take up for a moment the relationship of these questions to the medical profession. Certain sections of the State of Pennsylvania have become very much stirred up over

this nursing proposition. Night before last I attended a meeting of the York County Medical Society and there they have been very much wrought up over the question in their community because certain young ladies, graduate nurses, were appointed by the Commissioner of Health for the State of Pennsylvania to examine school children. They took exception to that, stating that was not a nurse's duty, that she was not competent in the first place to properly examine school children; that she was not qualified or, in other words, she was illegally practicing medicine. They took the matter before the Board of Medical Licensure of the State of Pennsylvania where the matter was threshed out after they had been given a very cordial reception. It would necessitate many unpleasant features, of course, if the members of that County Society should ask for prosecution in cases of that kind and this they did not want to do. That is only one phase of it, however. In my particular community, 5 years ago many of the industrial concerns took on nurses to do first aid work when the Workmen's Compensation Act came into effect. They were practicing medicine and the limit to which they went was something outrageous for a while. As a personal experience: I was called to a patient of mine who was a miner, a very good man, who always paid his way and was capable of doing so. He had been burned in the mines and first aid was rendered by the nurse. He was sent home, as he refused to go to a hospital. I was called in and on the second day when I went back to do my dressing the nurse came in and in her rather glib way fairly ordered me from the case. It did not take me long to tell her where to get off. But this is the thing that I am afraid Mr. Pitcher as a superintendent of a hospital does not see the effects of upon the medical profession outside and this is what I had hoped would be discussed as a part of the paper this morning, the relationship of the nurse to the doctor. I feel that this is the particular thing that we must take back to our membership; that we must endeavor to curtail the activities of these young women who have taken upon themselves the practice of medicine—not the practice of nursing, but the practice of medicine.

Now we will go back to the original reason for all this. It is simply because they are overeducated; they are not over-trained. I venture to say that any of you men who practice general medicine and employ nurses do not find that they are over-trained, but they are overeducated. It is a very difficult matter to get a good trained nurse. It is the easiest thing in the world to get one that is overeducated.

As to the matter of group nursing, we do this in a limited way but do not call it group nursing. We have tried in hospitals with which I am connected to get the nurse to take care of 2 or more patients, but it has been very unsatisfactory for this reason: If you have a patient who is very ill and who needs a real nurse, her services are necessary for 24 hours. If the patient only needs a play fellow or somebody to amuse her, that is a different proposition. After the crisis is over, they do not need constant attention usually and a group nurse or hospital attendant is quite sufficient. But for the very sick patient constant attendance is very necessary.

I feel that the course of 2 years is quite sufficient. These nurses can be taught the practical things in 2 years. We cannot give them higher education. Why should we? If a girl wants

higher education there should be institutions provided for that just as there are colleges for high school graduates. These are things of common sense. We should not try to train technicians, psychiatrists nor diagnosticians, but train an attendant for a sick individual who will be an accessory to the doctor who is in charge. I believe that in our overeducation of these young women we are making of them a would-be doctor rather than a good nurse.

As to hourly nursing: In the city of Scranton the District Nurses' Association has tried out for the last 5 years this subject, and in talking just a little while ago with the head of the District Nurses' Association I was told that it is a miserable failure, that not enough people seem to appreciate hourly nursing. If you were sick, would you want to pay a trained attendant \$2.00 or \$2.50 or more an hour to come in and make your bed, give you a bath, comb your hair and look at you? That can be done by a member of the family. There isn't much need, in my opinion, for an hourly nurse. She cannot do much more in an hour than put the family on the right track and the nurse refuses to stay more than 2 hours, and if you can pay for that you might as well have a nurse by the week.

There is, in my opinion, serious need for young women, well trained, who will earnestly go at the matter of nursing, earnestly endeavor to take care of sick people without the thought of being physician, without the thought of an over-amount of remuneration. We all need remuneration for our services; goodness knows, if a doctor got all he worked for he would not have to work but 4 or 5 years, but most of us work many, many years and get little or nothing at all. And so the nurse must do this. After all, if we like the work, who cares? It is our work and the nurse must look at it in the same way. There must be a spirit of coöperation both on the part of the nurses and on the part of the doctors.

Dr. Green: The question of nurses performing the duties of doctors in the line of institutional work, that is in factories, schools, etc., is one that I am sure exists in almost every community. I know it exists in Elizabeth, and instead of diminishing it is increasing. I hope this subject will be discussed fully.

Dr. Walt P. Conaway, Atlantic City: I knew nothing of this meeting until this morning. I was supposed to be a good listener and not a talker. I might make a few remarks regarding our own community. A few years ago we did have a very acute shortage of nurses and were considerably handicapped, but that has been relieved to a great extent and now I think our Register contains something like 240 or 250 nurses. A few years ago we doctors started a Registry here in a drug store and had about 20 nurses on it. Now there are 2 Registers, one containing over 200 names and the other about 150. The registration fee is now \$15.00 a year; it used to be \$1. Salaries are probably higher than in other cities. Our graduate nurses receive \$7.00 a day. Two nurses on a case receive \$6.00 a day each. The hospital case is required to have 2 nurses, a day and a night nurse. The hospital receives \$2.00 a day and the nurses each \$6.00.

We are trying the group nursing only to a very limited extent. On a floor where there are 2 small private rooms the head nurse has been trying that out. If there is a laparotomy case in one room at about \$5.00 a day, if the family

can afford a nurse for the first night, one of the nurses will take care of the patient after that. In that way we are experimenting with the group nursing, having the nurses from the private wards take care of the patients in the smaller rooms. In medical cases they can take care of them from the beginning, but in operative cases not until after 48 hours.

The hourly nurse is being given considerable thought. In the hotels it is often the case that some individual will want a nurse for several hours in the morning, for which she will pay \$2.00. Sometimes an elderly person will want a nurse to sit with her. Several of these practical nurses go out giving colonic irrigations, for which they will receive a fee of \$2.00. Some of them give massage and an alcohol bath, for which a fee of \$2.00 is charged.

In our hospital we are fortunate in that our own nurses act as missionaries and send us other nurses for training. Canada sends us a great many nurses. We have about 40 nurses, 15 or 18 of whom are from Canada. We have a large number of pupil nurses coming in each year from Canada. Whether it is the attraction of the city or the hospital I don't know, but they make excellent nurses. I think our Canadian nurses as a rule are a higher class of girls.

I have not read the questionnaire and I don't know that my remarks will help you, but that is the way those things apply to our own community.

Dr. Green: Do you have any difficulty in getting the nurses to take certain cases? Do they select just the kind of cases they want?

Dr. Conaway: Yes, they are rather particular after they have been out for a few years, but the recent graduates will go on almost any kind of a case.

Dr. Morgan: You haven't any nurses down here that insist on the 8 hour nursing time?

Dr. Conaway: No, they work on the 12 hour plan.

Dr. H. O. Reik: I don't need to make any explanation as to why I invited Dr. Conaway to be here today after you have heard him speak, nor is it necessary to explain why so many of the Canadian girls come to his hospital to receive training. He is the handsomest member in the ranks of the New Jersey Medical Society since Dr. Green was elevated to the Presidency.

I have been very much interested in this nursing problem for a great many years. I started in when it was rather new—not with Florence Nightingale nor Sairey Gamp—but I was at one institution in Baltimore at the time it was opened and that institution has had a great deal to do with developing this condition that Dr. Albertson and Dr. Morgan have referred to as overeducation. It has thoroughly run away with us in that part of the country at any rate. An incidence of this is the recent book by Miss Nutting, who is the head of this department of Teacher's College at Columbia University, and who was the Superintendent of Nurses at the Johns Hopkins Hospital for some years. She presents their side of the question, with the higher education going up still higher now for special nurses, as well perhaps as it could be presented. I have been out of active practice for 10 years and so am not competent to speak on the nursing question from a practical side.

As the Secretary of this Committee, I am always harking back and trying to bring some concrete action out of these conferences so that



they may not end with the discussion, interesting as it is, and I am wondering if this conference could take today some definite concrete action, or whether Dr. Van Etten, representing as he does not only the New York State's Committee but the American Medical Association's Committee, would like us to do anything to further his recommendations as applied to these 3 states? Of course, a full report of this meeting and all the discussion will be submitted to the Journals of the 3 states and will doubtless appear in the Journals and be distributed to the members of the medical profession in these 3 states. But, would it be wise to go further, to let the conference ask the respective state societies to send any recommendations taken here today to all of the hospital training schools in this district, seeking to secure their assistance in the solution of the problem?

One thing has occurred to me, that we might adopt Dr. Van Etten's definition of the basic nurse, and possibly go further and adopt the principle of providing for the education of the basic nurse which does not exist today as a fundamental proposition in the training of nurses, as compared to the higher education now given to the registered nurse and the provision for specialists after they have become registered nurses. I wonder if Dr. Van Etten thinks that the situation is such as to justify us today in taking some such action, adopting his definition, adopting the principle of providing for the education of the basic nurse, and of calling upon the institutions in this large territory to coöperate in the development of such plans?

Dr. Van Etten: I feel that we are really a fact-finding committee. We were very anxious to get a basis, to discover what is the basic nurse. I wrote down this little definition in order to submit it to you gentlemen and ask you what you thought of it. I would like to have that definition broadcast as far as possible and get a reaction from that in order to find out what the country thinks of this definition of the basic nurse. I will read it again:

"The basic nurse is a graduate who has completed the hospital training school course in the theory, practice and art of nursing in 2 years and is fitted to nurse patients either in a hospital or at home."

That is the definition that I present as my idea of the basic nurse. I do not feel that we should try to force that definition upon people, but we should see whether they like it or not and whether that is the real definition that the American Medical Association and the State Societies are after; whether we think that we can educate a nurse sufficiently in 2 years to make her a valuable nurse for the sick patient. We must nurse the patient and we must maintain the relations between the doctor and the nurse, and if the nurse is overeducated the doctor is out of joint with the nurse and he will never get back until the nurse is fundamentally educated. We have no objection to educating a nurse beyond that point, but we think that should be the fundamental education. We feel that the public health nurse, for instance, should have a very much wider education. All the nurses that go into technical work should be postgraduates in the various fields which they take up. Dr. Lawrence feels, and I agree with him, that the public health nurse should start in a different way from the basic nurse. The basic nurse can go through the hospital from the inside, and the public health nurse should

go from the outpatient department and does not require perhaps all that intensive training in the art of nursing that is required in the hospital nurse.

I am delighted that this conference thinks that is a good definition of the basic nurse, for that helps me very much indeed and I am very indebted to all of you for your discussion which has contributed many ideas of value to me. I would like very much for each of you to take this questionnaire home and let me have an answer directly in writing. Of course, we will get these notes, which are tremendously valuable, but there are other points which you have not covered. If you endorse this definition of the basic nurse as an expression of this group it satisfies me.

Dr. Overton: I think one or two words should be added. We should say what is basic nursing. It is hard to grasp just what is meant. I think every highbrow superintendent of a medical school, from Yale up to Gouvenour and Amsterdam, who want this psychiatric nursing and specialist nursing, would agree perfectly with this definition. Basic nursing includes the fundamentals which go with all nursing, the use of the bed pan, giving the patient an enema, brushing her teeth, etc., that is what you mean, isn't it?

Dr. Van Etten: We mean more than that. We mean the education she would get in the 2 years training in the hospital.

Dr. Overton: Would that include psychiatric nursing?

Dr. Van Etten: No, it would not.

Dr. Reik: I move that we accept the definition of a basic nurse as given by Dr. Van Etten. (This was seconded by Dr. Albertson and unanimously carried).

The President: The next subject on our program is "The Prevalence of Rabies and the Need for Laws Requiring Vaccination of Dogs", and I understand that Dr. Reik will present this question for Dr. Costill who is unavoidably absent.

Dr. Henry O. Reik: It is very unfortunate that Dr. Costill, Director of the New Jersey State Board of Health, could not be with us today. The State Sanitary Association is in session at Asbury Park for 2 days and we had hoped he might be able to divide his time between us, but a special conference of health officers called for this morning prevented his leaving the other meeting place.

Dr. Costill and his assistant in the Bureau of Bacteriology, Mr. Mulcahy, have supplied me with a mass of information relating to this question, from which I may give you a condensed statement. There is positive evidence that rabies has been on the increase in New Jersey during recent years, and reason to believe that this condition applies also to other portions of the nation. Our present antirabies laws do not seem to be effective as a means of controlling this disease, and the menace to the people appears to be sufficiently grave to warrant consideration of further legislation intended to prevent further spread of the trouble.

In brief, there is an increase in the prevalence of rabies. It is quite widely disseminated. In this particular state this is shown by the figures that in the 5 years since 1920, there were 10 deaths reported from rabies. In the first 10 months of this year there have already been 7 deaths from rabies. The increase is also shown in those 6 years as to the number of dogs' heads



examined by the State Department, a steady increase from 64 in the year 1917 up to 367 in the first 10 months of 1926. Taking this year alone, for instance, at the Health Department at Trenton they have found from the examination of heads of dogs 202 positive cases, with 45 negative and 20 doubtful.

The newspapers of the state have been more or less alarmed by the outbreak in certain districts. Incidentally, the number of deaths is probably correct, but the number of dogs' heads and individuals examined does not represent the whole story because in addition to the number examined at Trenton, the other large cities like Newark and Jersey City examine a great many also, through local health boards, so that the number is probably far in excess of 367 reported for the entire state.

In this state we have vaccination for dogs in certain limited districts, a few of the smaller cities and towns, but dogs do not recognize the boundary lines of course and the sentimentalists have gotten to work and prevented vaccination of dogs in some towns. We had a law here in Atlantic City, but, much to the disgust of the medical profession, the Council met and rescinded it. So the state authorities have been considering the advisability of making a vaccination law state-wide and introduced a Bill at the last session of the Legislature. It was adopted by the House but got down to the Senate so late that there was no time for action. The Bill provides:

"Every person owning or harboring a dog within the State of New Jersey shall, on or before the first day of July, in each year, apply to the clerk or other person designated by the governing body of the city, town, borough, village or township within which said person may reside for a license for each dog owned or harbored, at which time said person shall present and file with the clerk or other designated person a certificate signed by a licensed veterinarian of the state showing that said dog has within 30 days been vaccinated against rabies, whereupon, after paying the fee hereinafter set forth, the said clerk or other person designated shall issue to such person a license together with an official tag, which shall be fastened and worn at all times on the collar of the said animal, or in lieu of said certificate of vaccination the person making application for license shall certify to the satisfaction of the clerk or other designated person that his or her dog will be kept muzzled, and said dog shall at all times when running at large be effectively muzzled."

The Health Commissioner is not insistent upon the exact wording of that Bill but desires to secure some legislation providing for the vaccination of dogs against rabies. Statistics are given to show that while this is not an absolutely certain protection against rabies any more than vaccination is a certain protection against small-pox or antitoxin administration an absolutely sure protection against diphtheria, the statistics show an overwhelming preponderance in favor of this attempt to control rabies in the animal and to prevent its spread to the human being.

Dr. Costill intends to reintroduce this Bill at the coming session of the Legislature. All 3 of our states are having legislative sessions shortly after the first of the year. One of the primary reasons for establishing this Tristate Conference was that we might be able to cooperate to bring about uniform legislation in this territory, and so this matter is submitted with the object of

asking whether New York and Pennsylvania would feel inclined to make the same effort, at the same time, to secure this kind of legislation in their respective states.

Dr. Campbell is here, representing the State Board of Health for Pennsylvania, to discuss this matter. May I say, before he speaks, that I have a letter from Dr. Nicoll, Director of the New York State Health Department, stating that he hoped to have Dr. Marsh come in his place, and Dr. Marsh has written that he would be unable to come here today but they present this letter:

My dear Dr. Reik:

As you probably gathered from the correspondence which you have had with Dr. Nicoll, it was arranged that I should be present at your meeting on December 4 to discuss the question of compulsory vaccination of dogs as a preventive of rabies. However, this morning Dr. Nicoll and I have discussed the question and we find that it will be impossible for either of us to attend.

As he stated to you in his letter of the 26th ult., the Public Health Council of this state is not entirely convinced of the value of such regulations for the control of dog rabies. You may be interested to know that we have reports of 5 dogs having been vaccinated for rabies during the year 1925 which subsequently died of rabies; the intervals between vaccination and death varying from 26 days to almost 1 year. These instances all occurred in communities where there had been considerable agitation for vaccination and where the owners voluntarily had about 3000 dogs vaccinated. I do not know as to the total number of dogs there were in the section of the state where these cases occurred, but I have the feeling that the proportion of deaths from rabies among the unvaccinated dogs in that part of the state was not much higher, if any, than the ratio among the vaccinated.

I have talked with Commissioner Harris of New York City regarding his attitude on this question and he states that he has been misquoted in the newspapers in regard to his plans for requiring vaccination of dogs. He has the same attitude that we of the State Department of Health have—that of open mindedness and seeking further information before advocating a procedure which, to our minds, has not been proven.

Yours very truly,

(Signed)

EDWARD H. MARSH,

Secretary.

Dr. Harris, Commissioner of Health, New York City, has expressed himself very emphatically and is also asking for legislation to cover this point.

Dr. Marsh calls attention to the fact that there have been within the last few years several cases reported in which vaccinated dogs had afterward developed rabies. Of course, there is no doubt about the correctness of that. We have cases of small-pox and diphtheria develop where persons have had vaccination or toxin-antitoxin. That always brings up the question of the accuracy of the virus and the technic that is employed.

So, Mr. Chairman, I submit this as coming from the Health Commissioner of New Jersey with the statement that he is going to ask for such legislation in this state and he hopes the Conference may see fit to recommend to the medical societies and the Health Boards of New

York and Pennsylvania that they also endorse the same kind of effort to secure this legislation in their states.

Dr. Campbell: Mr. Chairman and Gentlemen: Pennsylvania apparently has not had the increase in rabies during the last few years or months as has New York or New Jersey. There have been during this present year 6 deaths from rabies in Pennsylvania. In 1913 the Legislature passed what we may call a supplement to the Poor Laws of the State which provides that the Health Board shall see that indigent persons who are bitten by rabid dogs shall receive treatment without expense. The difference in the death rate occurs right there, so it seems that the law has had some effect. Prior to that time we had more deaths from rabies. From 1913 down to the present time our median number of cases has been 6. We are now just on our median line, in 1926, no better and no worse. So that Pennsylvania has not had apparently the definite increase in rabies that the other states in our neighborhood have had. I don't know that I have said that just as well as I should. We have not had an increase in human rabies, but we have had a slight increase in canine rabies.

The control of rabies in our State of Pennsylvania is vested in the offices of the Bureau of Animal Industry and the State Sanitary Board, which is a part of our Department of Agriculture. The State Department of Health has nothing at all to do with the control of rabies. The State Live Stock Sanitary Board reports to us that the average number of cases of rabies of dogs and other domestic animals is somewhere from 120 to 150. In 1925, they had only 62 cases reported among animals; in 1925, it had jumped to about 150. Prior to 1924, there were 123 to 130, so an average between 120 and 150 might be taken as the incidence of rabies among animals in Pennsylvania. This year, however, there have been 190 cases of rabies reported, so we have some increase in animal rabies but no increase in human beings.

As regards vaccination as a means of controlling rabies, I will first give you the attitude of our Bureau of Animal Industry. I am sorry some of them could not be here today to discuss this particular line of work. They do not believe that vaccination is the key to the situation. In Pennsylvania they depend practically altogether on quarantine and destruction of the dog. We have in Pennsylvania rather complete laws covering the whole question, not directly referring to rabies, but to diseases among animals. We have a perfectly good dog law which requires licensing and that is enforced. As a matter of fact, the funds derived from that are far in excess of any other moneys received by the Department of Agriculture, especially the Bureau of Animal Industry. It is the source of funds for the maintenance of one large Bureau if not more.

But they depend rather on quarantine and the destruction of dogs for the control of rabies. The report of a case of rabies to them from any community means the immediate presence of their County Veterinarian. Quarantines are established immediately after his arrival. Animals that have been exposed to a rabid dog will be placed in quarantine. If there have been a number of rabid dogs and the exposure has been wide, these quarantines are for 90 days. They feel that they have very little to hope for from vaccine as a means of eradicating rabies. But I think it is entirely comparable to our attempt

to eradicate typhoid fever in a civil population by vaccination. The "roaming dog" or cur is looked upon as being the real menace in this question of rabies propagation.

During the last spring, in May to be exact, at the conference of State Officials held in Washington, at the office of the United States Public Health Service, one whole morning was given up to the discussion of rabies among animals. We were told there had been a very definite increase among the states. The discussion brought out something like this: Dr. Stimpson (?) of the United States Public Health Service, who has been particularly assigned to rabies investigation, felt that vaccination would not control rabies, that we had better lean on quarantine and the destruction of the worthless dog. As I remember, 3 of the states represented by their Health Officers at that Conference were employing vaccination as a means of controlling rabies and they thought they were getting results. I remember Oklahoma, Kansas and Iowa were practically satisfied with what results they were getting from vaccination. But on the other side were at least 6 or 8 states that had tried vaccination and were not satisfied with it.

Finally, further discussion of the matter brought out this, among other facts: that there are probably several, at least 2, strains of rabies infection. The vaccine that has been used so far has been a monovalent vaccine. You cannot, therefore, vaccinate a hundred dogs with any real success against rabies if there are, as they say, 2 strains of rabies and a polyvalent vaccine has not yet been made.

Dr. Nicoll, at the meeting I have just referred to, reported 5 cases. In Pennsylvania, I doubt very much whether anything can be done in the way of pushing a compulsory anti-rabies vaccination law to be applied to dogs. We are not convinced over there and we feel after all that a majority of those working in this line of work are with us, that vaccination has not so far proven of sufficient value to be formally recommended by State Societies.

Dr. Reik: In view of the letters from Dr. Nicoll and Dr. Marsh and the remarks of Dr. Campbell, I think it would be unwise to introduce this resolution because this Conference must be unanimous upon any question. Of course, the answer that those in favor of vaccination make is that the quarantine doesn't catch the "roaming" dog.

Mr. President, it was decided at the Philadelphia meeting that we should have 3 meetings per annum, one here in the Fall, one in February, which is about the middle of the legislative session in the different states, and one in the Spring. Following this custom, it would be New York's turn to have the next meeting, and I would like to have, as the Secretary of the Conference, some suggestions as to what must be put on the program at that time.

Dr. Fisher: I might say that New York State will be prepared to entertain this Conference at the time which may be appointed later, and if you think it wise to provide some discussion for that meeting now it may be well to do so, or the subjects may be left open. We in New York State have been very much interested in our public health work, especially the Antidiphtheria Campaign and the relationship of the physician to the public health organization, and that is a lively topic in every County Society and in our State Society, and if something of that



kind could be brought out at the next meeting I think it would be satisfactory to the New York State people. I would suggest at this time, that our State Society Executive Officer, Dr. Lawrence, be informed of those who will attend so that we may provide ample entertainment and also know the subjects that will be discussed at that meeting.

I wish to extend to this Conference the invitation to meet in New York for the next regular meeting.

Dr. Green: I know that the Conference will accept with pleasure this kind invitation of Dr. Fisher on behalf of the New York State Society. Are you prepared to offer any motion as to the subjects to be discussed, or do you wish to leave that to a Committee?

Dr. Reik: I suggest that we leave that to Dr. Fisher and Dr. Lawrence as they are in close coöperation and might better prepare the program at their leisure. Dr. Fisher asked for a list of those who would be invited. At the Philadelphia meeting I tried to establish a definite form because we had been going along rather informally before that. The original suggestion was that the Conference should consist of the President and Secretary, Editors, Chairmen of the Legislative Committees in the respective states, and the Secretary of the State Board of Medical Examiners. We concluded that it would be wiser to leave off the Boards of Medical Examiners and confine the meetings to the officers mentioned. Dr. Albertson tells me that at the last meeting of the Pennsylvania State Society they took definite action upon this matter. The New Jersey Society accepted the original recommendation we had made. The list as provided in Pennsylvania was: the President, the President-Elect, the Secretary, Chairman of the Board of Trustees, the Executive Officer, and the Editor. The Chairman of the Board of Trustees was substituted for the Chairman of the Legislative Committee. I know that will be acceptable to New Jersey. Is that acceptable to New York?

Dr. Fisher: Quite, I am sure.

Dr. Green: Is the motion of Dr. Reik's that the consideration of the subjects for the next meeting be left to a Committee composed of Drs. Fisher and Lawrence seconded?

The motion was duly seconded and carried.

Dr. Morgan: I want to read a resolution that was adopted by the Philadelphia County Medical Society, copies of which will be mailed to each member personally:

**RESOLVED,** It is the sense of the Philadelphia County Medical Society that Senate Bill No. 4085 and House Bill No. 11612, which aim to impose added restrictions upon physicians with regard to the carrying out of the provisions of the Harrison Narcotic Act of December 17, 1914, should be defeated.

The proposed Bills do not allow any physician to defend himself if charge is made against him personally in the use of narcotic drugs or in his prescribing the narcotic drugs for other persons and would require new and burdensome record keeping without any additional safeguard in the carrying out of the Harrison Act.

The proposed Legislation would also permit persons without educational standing to act in judicial manner to pass judgment upon charges made against any physician and would not afford him right to notice and hearing before final action would be had in such case.

(Signed) ARTHUR C. MORGAN, M.D.

This was adopted and has been sent to the County Societies of the State. You all received the American Medical Association Bulletin, issue of October. On page 171, is an article by Woodward in relation to the proposed changes in the Harrison Narcotic Act. As this vitally and deeply affects all of us, it was the sense of the County Society that this should be broadcast in every manner possible so that the members of the Board here today will receive copies next week.

Dr. Lawrence: May I ask whether the County Medical Society in doing that has forwarded a copy to the Senators and Representatives from Pennsylvania?

Dr. Morgan: On page 176 of the same Bulletin referred to above is given a list of all the members of the Committees on Finance, United States Senate, Committee on Ways and Means, etc., to whom copies have already been sent.

Dr. Fisher: At the last Executive Committee meeting of our Society this very subject was brought up and it was decided to draw up resolutions to present to our Senators and Representatives by the Legislative Committee, and we expect a report from that Committee next week. I think it will be more or less broadcast through the state and the request will go out to our several Senators and Representatives advising that negative action be taken on this Bill.

Another peculiar thing came up recently in New York State, and that is that in prosecution under the present Harrison Narcotic Act, we found that several physicians through the state had been approached by Government officials and threatened with suits but a settlement was offered by paying a fee of \$50.00 sub rosa. That is not according to Hoyle, I believe, among practitioners, and we have also got that under discussion. I would like to ask if there has been anything of that kind in Pennsylvania?

Dr. Morgan: The Philadelphia County Medical Society reported 3 concrete cases similar to that described by Dr. Fisher and we are stopping the leaks at once.

Dr. Reik: I would like to report for the New Jersey State Society that every member of Congress and both United States Senators have received within the last week a letter as hot as I could make it about the opposition to the Harrison Narcotic Law. I also appealed to them to repeal the Sheppard-Towner Act, and I have response from most of them that they will give the matter consideration. The Journal for December also carries an appeal to every member of our Society to see or write to the representative of his individual district.

Dr. Lawrence: If it be not inconsistent with the object of this body, I think it would be a very worthwhile procedure for us to adopt some resolution which could be sent to the Congressmen from the 3 states, indicating the unanimity of this feeling against advancement of that legislation. I feel that it is highly essential that we do everything that we can and make every aggressive effort possible. It will not be sufficient for us to simply register our opposition in a broadcasting way because the people who have originated this legislation are centered at Washington and are going to use every effort to have it passed. They will not waste any breath in attacking us. They will spend all their time right on those Congressmen, and I think the State Societies should make it a point of knowing when those Bills in either House are coming up for a hearing and have delegations from

these states go to Washington to assist Mr. Woodward and see their respective Congressmen and make them thoroughly understand that there is no debate about the matter at all, that the medical men in large number are absolutely opposed to "putting teeth" into the Harrison Narcotic Law; the amendment is not only putting teeth into it, but bristles all over it.

The motion that this resolution read by Dr. Morgan be adopted by the Conference was put before the members and was duly seconded and unanimously carried.

The meeting adjourned at 2 p. m. to have luncheon at the Hygeia Marine Grill.

## County Society Reports.

### ATLANTIC COUNTY.

Harold S. Davidson, M.D., Reporter.

The regular monthly meeting of the Atlantic County Medical Society was called to order at 8:45 p. m., Friday, December 10, 1926, in the Atlantic City Hospital, by the President, Dr. D. W. Scanlon.

The cases presented at this clinic were all from the medical services of Drs. Scanlon and Davidson in the Atlantic City Hospital.

Case 1. (Presented by Dr. Scanlon.) A girl of 17 years, who was admitted to the hospital a few minutes before the clinic began. This case presents some of the difficulties of diagnosis in a private home. The history indicated that the girl was well until the previous night, which was shown to be manifestly impossible. She had had 3 convulsions and was sent to the hospital as a case of epilepsy. Patient was very anemic, face puffed, and urinalysis showed 450 mgm. of albumin per 100 c.c. of urine; a working diagnosis of nephritis. Further examination disclosed exaggerated reflexes, ankle-clonus, negative Babinsky and Kernig signs. Blood examination: 2,580,000 r.b.c.; 9000 w.b.c.; hemoglobin 50%; color index 1; polymorphonuclears 78%; small lymphocytes 20%; eosinophiles 2%; anisocytosis marked, macrocytes predominating. This brings up the question of pernicious anemia with posterolateral cord lesions. This case will be studied as to eye-ground examination, gastric analysis, etc.

Case 2. (Presented by Dr. Scanlon.) A girl of 18 who had been ill for 18 months. Her condition had previously been diagnosed as gastric ulcer. For 7 years she has been vomiting about twice a week. She had scarlet fever 3 years ago and has had 2 attacks of acute rheumatic fever. She would get short of breath on ascending stairs. One month before admittance to the hospital, she was caught in an electric elevator and severely shocked and burned. She had been taking duodenal drainages for a month, and came to the hospital with marked loss of weight, weakness and smothering feeling; has a weak myocardium as a result of her rheumatic fever. The pain in her stomach comes at various times, with no relation to feeding; hydrochloric acid about normal. She is not relieved by ulcer treatment; x-rays do not show an ulcer. It is apparently a case of neurocirculatory asthenia, and the accident precipitated the present condition. The girl has been over-treated and should not be hospitalized, but sent to pleasant restful retreat.

### Discussion.

Dr. Richard Bew: In the first case we are struck by the paleness of the girl's face and the pretibial edema. The heart is much enlarged and sounds as though it were suffering from an acute infection. Neurologic examination shows convulsions and irritation of the central nervous system. The blood suggests pernicious anemia, but I feel that this is a secondary anemia due to her nephritis, and that the convulsions are due to uremia. In the second case the girl has a persistent tachycardia and shows marked nervous instability. Heart does not sound like an organically diseased heart—it is not enlarged—but is a dropped heart. No signs of goiter; basal metabolism minus 25. She is one of those individuals who do not measure up to standard, and it appears to be a case of neurocirculatory asthenia, or nervous heart.

Dr. Harold S. Davidson presented 3 cases of typhoid fever, and discussed the cause, prophylaxis, seasonal occurrence, modes of onset, symptomatology and diagnosis.

Case 1. A boy aged 6 years, presenting the gastro-intestinal type of onset. Cases of this type are often mistaken for appendicitis and sometimes operated upon without relief, and after 7 or 8 days of ascending temperature rose spots appear, spleen enlarges, tongue becomes furred and coated, and the true diagnosis is apparent. This child presented the not uncommon sequel of boils; more common in cases treated by hydrotherapy. Cultures from these boils showed staphylococcus albus. Sometimes we are able to recover typhoid bacilli from the pus.

Case 2. This case showed the pneumonic form of onset. The man was sent into the ward as an acute case of lobar pneumonia. He had a pneumonia, but his temperature did not come down by crisis after 8 or 9 days, and about that time rose spots appeared; spleen was enlarged and his Widal was positive. Pneumonia very often occurs during the course of typhoid. It is possible sometimes to recover the typhoid bacillus from the sputum. In this case, pneumococci only were discovered in the sputum. This patient had a complicating phlebitis of the femoral vein. The phlebitis complicating typhoid fever is not like the acute phlebitis seen in phlegmasia alba dolens; there is only slight swelling and moderate pain, and it is not a serious complication.

Case 3. This case presented the usual insidious onset. Very often these cases are ambulatory, with vague symptoms, until a sudden copious hemorrhage fixes the diagnosis. This man, between the third and fourth week, when the sloughs were separating from the Peyer's patches, suffered 3 severe hemorrhages. There were no symptoms beforehand, but suddenly the patient complained of a sinking feeling; temperature dropped 6 or 7° in a very few minutes, and in a few hours he passed a large, dark, bloody stool. The only treatment instituted was an ice bag on the abdomen, and deodorized tincture of opium and bismuth by mouth. The blood in all these cases shows a leukopenia and there is usually a marked secondary anemia. During the course of their typhoid fever, these patients lose between 1 and 2 million red blood cells and from 15% to 20% of their hemoglobin, and they often present post-typhoid tachycardia. Either tachycardia or bradycardia may appear after prolonged typhoid fever; bradycardia being the



most common and tachycardia the most difficult to overcome.

### Atlantic City Hospital Staff.

Joseph H. Marcus, M.D., Secretary.

The monthly meeting of the Atlantic City Hospital Staff was held in the Nurses' Auditorium December 17.

Dr. Homer I. Silvers reported his surgical service extending from May to July, 1926, inclusive. The number of cases totaled 163, of which 11 terminated in death. A brief resumé of the important findings of each fatal case follows:

Mrs. N. C., age 50, was admitted June 1 with a diagnosis of fractured right femur, general abrasions, and fracture of second and third lumbar vertebrae. A laminectomy was done, and showed that the spinous and transverse processes were crushed and pressing upon the cord. She died July 12, 1926, without any benefit from the operation.

Mr. J. L., age 50, was admitted May 17, suffering from a multiple and depressed fracture of the skull. A double decompression was done, but he died the next day.

Mrs. N. V., age 39, was admitted May 3, for an ulceration of the left leg, but was found to have chronic nephritis, and pulmonary tuberculosis, and she died 3 days later.

Mr. G. F., age 20, as the result of an auto accident, was admitted with a crushed chest with hemothorax, and in a moribund condition, and lived only an hour.

Mrs. M. McG., age 48, admitted with intestinal obstruction on June 23, in poor condition, having been ill for several days. She was operated upon but failed to respond, dying the next day.

Mr. J. H., age 22, admitted July 15, with a diagnosis of fractured jaw, lacerated face, and possible fracture at the base which could not be demonstrated at x-rays, but he later developed a meningitis and died July 20.

Mrs. V. M., age 63, admitted May 19, had second and third degree burns of head, face and hands. There were present first shock, then toxemia from absorption of septic material, with a myocarditis; associated with a positive Wassermann of the blood. She died on May 30.

Mr. E. M., age 57, was admitted May 22, with fractured ribs and a fractured skull. His condition was poor throughout and we resorted to repeated spinal drainage. Both his blood and spinal fluid gave a positive Wassermann. He died in 3 days.

Miss K. H., age 21, admitted June 26, with a fracture of fifth cervical vertebra and died 2 days later.

Mr. M. O'N., age 37, admitted May 12, with a compound fracture lower end of left femur, and compound fracture of both bones of the left forearm. He died 2 days later from a fat embolus.

Master A. G., age 8, admitted June 8, with a tentative diagnosis of sarcoma or cirrhosis of liver. He was operated on and a malignancy of the under surface of liver and neck of gall-bladder seemed quite evident. He died June 27.

A very interesting and unusual case report of "Diverticulum of the Appendix" was presented by Dr. Silvers. A search of the standard surgeries and the surgical pathologies gives very meager information upon appendicular diverticula.

The current literature gives it somewhat more attention, particularly the French in the last few years. Binnie speaks of "the dilatation of the tubular glands producing a condition of the diverticula, which are distended with thick viscid mucus." There may also exist a single diverticulum of the appendix but this condition is very rare.

McFarland speaks of "partial and multiple areas of obliteration of the lumen of the appendix with the formation of dilated or cystically dilated portions of the appendix with thin walled sac filled with watery mucus; to which he gives the term, appendicular mucocele." He also speaks of alternating obliterated and patulous segments in which the retained secretions produce a beaded or diverticulated appearance."

Diverticula of the intestinal canal may be single or multiple and may be found in any portions, the descending portion of the colon and sigmoid being the location of the more frequent multiple variety. The true congenital type, formed from the remnants of the omphalomesenteric duct is quite regular in its position, being always found within 2 feet of the cecum, and is known as Meckel's diverticulum.

The acquired type is developed through some weakness or loss of resistance in the alimentary canal, as at places where the vessels enter the walls of the intestines; by inflammation and infiltration by round cells; and by increased tension or traumatism. We do not mean by acquired, the cystic formation whereby the dilation of glandular tubes or follicles, push their way through the muscularis, but rather that they must contain all of the coats of the intestinal wall.

A. P. Stout, in 1923, declared that all cases of diverticula of the appendix are acquired and no congenital type has been found.

Herb collected 25 cases reported but does not make any division in them.

The position of the appendicular diverticula varies, the most common location being at the mesenteric attachment, the next at the tip, and then the free border of the appendix.

The specimen that caused our attention to be drawn to diverticula was taken from a woman, age 25 years, who came into the hospital with an acute appendix.

When the appendix was split open, we saw a small opening, apparently a perforation on the side of the mesenteric attachment, which led into a small cavity, about 1 cm. in diameter, surrounded by the fat of the mesentery.

Dr. Silvers also presented the case report of a boy 8 years of age, with neoplasm of the liver. Dr. James H. Mason, associate to Dr. Silvers, presented a case of "Fracture of the Pelvis Extending into the Acetabulum", in which recovery was affected by means of closed reduction accompanied by traction. Another case report embodied an oblique fracture of the tibia and fibula. The indication for this latter condition necessitated open surgical procedure with plating, which was refused by the patient; Dr. Mason presented the roentgenograms of these cases.

Dr. Joseph H. Marcus presented a "Statistical Report of the Cases Admitted to the Pediatric Department" for a period of 10 months beginning June 1, 1926. The salient features in the causation of the deaths of 9 patients follows:

L. W., aged 2 months, male, 5 pounds underweight. Condition that of anhydremia, following athrepsia, the primary cause being pyloric steno-

sis. The chief complaint was projectile vomiting after feeding. The physical condition of the baby did not warrant operation. Normal saline, intraperitoneal, was given on 2 occasions and stimulations resorted to by hypodermic medication. The treatment consisted in the administration of thickened cereal, after Sauer's method and atropin sulphate. Baby died 10 days following admission. When a diagnosis is made either of stenosis or pylorospasm, of a severe type, it is very necessary to draw a line of demarcation between medical treatment and the institution of surgical procedure.

F. G., female, 7 months, admitted with temperature of  $102^{\circ}$ , suffering from a severe gastro-enteritis. History of illness for 4 days, being admitted through the dispensary. This baby was somewhat stuporous, dull and apathetic, showing extreme emaciation and marked signs of rickets. There was more or less constant diarrhea, with greenish liquid, foul smelling stools. This baby did not respond to alimentary treatment, the protein or carbohydrate types of feeding. The urine showed granular and hyaline casts. Baby died a few days after admission.

R. D., 10 months, admitted 8 p. m. in a comatose condition. Diagnosis, acute enteritis. Died on the day of admission. Question of early institutional treatment being more or less successful in avoiding fatal termination.

R. M., 18 months, male, admitted April 7, 11:30 a. m., with a temperature of  $107^{\circ}$ , pulse 210 accompanied by Cheyne-Stokes respiration and marked meningeal symptoms. Diagnosis, lobar pneumonia with the lesion in the right apex. Spinal puncture demonstrated clear fluid with marked pressure, laboratory examination negative. Temperature rose to  $109^{\circ}$  with death at 4 p. m. the same day.

W. P., male 3 months, weight 5 lb. 14 oz. (normal weight 13 lb.) Anhydremia. Saline was given intraperitoneal. Baby died 2 days following admission. Diagnosis marasmus of unknown origin.

M. S., female, 2 years, admitted 1.30 p. m. and died 9.15 p. m. on the same day. The predominating feature was that of convulsions, generalized. Due to the associated rickets, diagnosis of spasmophilia was made. Many authorities agree that all cases of spasmophilia have an associated rickets, but all cases of rickets do not have an accompanying spasmophilia.

Baby T., 10 days of age, chief complaint convulsions with a marked papulo-vesicular eruption, rhagades and the countenance of a wizened old man. The chest showed vague signs of a pneumonic infection. Even though the Wassermann at this time was negative, the physical signs and symptoms warranted a diagnosis of congenital lues. The family history was negative. Baby died a few days following admission.

B. B., 16 months, female, admitted September 17 and died 2 days later. This baby lost 5 lb. in 5 days prior to admission and on the day of admission showed marked anhydremia as a result of an acute gastro-enteritis due to a parenteral or enteric infection of unknown origin.

H. H., 5 months of age, male, weight 8 lb. 2 oz. on admission. (Normal about 15 lb.) Baby was in a state of athrepsia. Breast fed for 2 months and then put on Eagle Brand Milk. Intraperitoneal saline was given in an attempt to replace in part some of the body fluid. Baby died 2 days following admission. Diagnosis acute gastro-

enteritis. This typifies the carbohydrate type of baby and its poor powers of resistance to any illness; even though these babies appear to be fat and chubby the texture is flabby and soft and quickly vanishes under adverse circumstances.

Dr. Marcus then reviewed some of the "Fundamental Principles and Procedures in the Examination of the Chest in Infancy and Childhood." Finger percussion should, of course, be the only form used. It is evident that dullness may vary from slight to marked, according to the relative proportions of normal lung and solid bodies in the area reached by the percussion. It is also evident that various combinations of the flat, tympanic and normal lung sounds may be obtained. When the chest is percussed, the intensity of sound produced depends upon the amount of tissue reached by the percussion, that is, upon its strength. Roughly speaking, the area set in motion is somewhat of a triangle with its base at the surface, the size of the triangle depending on the strength of the percussion. Even with hard percussion, it is doubtful if the apex of the triangle is ever more than 3 in. from the surface. It is evident, therefore, that in determining the boundaries of organs the percussion stroke must be gentle, while if attempting to discover solid areas, deep in, it must be hard. It is also evident that in babies and young children, in whom the parts are small, strong percussion will bring out mixed sounds from several organs and hence give unreliable results. Light percussion should almost always be used, therefore, in babies and young children.

A slight sternal dullness of the manubrium may frequently be demonstrated; which dullness is produced by the thymus and so is separated from the upper border of the heart. In the experience of many, if not the vast majority, the dullness of the thymus merges into the cardiac dullness. More intense sternal dullness is undoubtedly always pathologic and may be accompanied by a bulging of the upper segments of the sternum.

#### Position for Examination of the Lungs.

The easiest way to examine the front of the chest of an infant or small child is when it is lying on its back in someone's lap; it is then less likely to be afraid than when it is on a bed or table. When the back of the chest is examined the baby should be held in someone's arms with its arms around the neck. In this position the air can enter both sides of the chest freely and the baby feels safe and at ease. If the baby is too sick to be taken up, it may be turned over on its face for the examination of the back. The weight of the body on the compressible anterior wall of the chest interferes to a certain extent, however, with full respiration and makes the result less satisfactory. The back should not be examined while the baby is lying on its side, if it can possibly be avoided, because the weight of the body compresses the chest on the down side and interferes with respiration on that side, and this may lead to wrong conclusions unless due allowances are made. If, for any reason, the baby cannot be turned over on its face, the back may be examined when it is lying first on one side and then on the other. It is usually wiser to examine the back of the chest of infants and young children before the front, as they are less likely to be frightened. With care, it is often possible to examine the back without the child knowing what is being done.



The front of the chest of older children can be examined equally well when they are standing or sitting as when they are lying on the back. If they are unable to sit up there is less chance of confusion from interference with respiration when they are lying on the face or side than there is in infants and young children. Great care must be taken, however, if they are on the side, to avoid false conclusions. Care must also be taken when they are sitting or standing, that the parts of the chest are symmetrical.

It is usually wiser to auscult before percussing babies and young children, because they are less likely to be frightened by auscultation than by percussion. Another reason is that, in general, the results obtained with them by auscultation are more reliable than those obtained by percussion. Light percussion must always be used in babies because of the small size of the heart. The sides of the chest must be symmetrical, if possible, because if the baby is on one side the compression of that side will modify the percussion note. In older children, especially in muscular boys, the contraction and subsequent bunching of the muscles will modify the sound.

The percussion note is normally more resonant during infancy and childhood than later. Even under normal conditions, a tympanic element is always added at the left base because of the position of the stomach, just below the lung, unless the stomach is full. When the abdomen is distended with gas, a tympanic element may be present on both sides of the chest, especially on the left.

It is impossible to percuss the apices of the lungs in infancy and early childhood because of the small size of the parts and because the apices do not come up into the supraclavicular spaces as high as in later life. The percussion note is not at all dulled at the right apex in infancy and childhood as it is in adults. There is, instead, an area of slight dullness under the inner third of the left clavicle up to 9 or 10 years, although it is hard to recognize the area in infancy. It is due, in part, to the presence of the great vessels and the esophagus on the left side and partly to the fact that the left lung does not extend as far forward as the right. If the child is sitting it often will be necessary to straighten the spine by gently pulling upward of the head, because the liver and diaphragm are pressing upward and to the right by the kyphotic posture resulting from the sinking down of the weak spine, and may thus cause dullness. D'Espine's sign should be looked for while examining the thorax. When present, it is indicative of enlarged bronchial lymph glands.

#### Sense of Resistance.

A sensation of more or less resistance is always felt in percussion, depending on the presence or absence of air in and the density of the parts percussed. When the lung is normal a sense of elastic resistance is felt. When there is solidification of the lung, the feeling of elasticity is lost and the resistance is increased. When there is an effusion in the pleural cavity, the sense of resistance is very marked.

#### Auscultation.

The stethoscope is, on account of the small size of the parts, far preferable to the naked ear in the examination of infants and young children. It is also important to use a stethoscope

with a small bell. If a large bell is used, it is impossible to get it all down on the surface of the chest of a thin baby or to pick out small enough areas. A large bell or a phonendoscope transmits the sounds from too large an area and makes it impossible to accurately locate their origin. Moreover, the bell of a full-sized phonendoscope is as large as a baby's heart and will almost cover a lobe or a lung. It is impossible with a phonendoscope, therefore, to examine a baby's heart accurately. A stethoscope with a metal bell ought not be used because the end is almost always cold, and this frightens the child or makes it uncomfortable. In applying a stethoscope to the soft thorax wall, avoid any pressure that may tend to make the child restless, or modify the sounds.

The respiratory sound is made when the air passes through the larynx. This sound is known as "bronchial", and is heard normally over the larynx and trachea in front and through the seventh cervical spine behind. It is not changed in character in its passage through the bronchi. When this sound is transmitted through solid tissues or liquids it is not changed in character, but may be more or less diminished in intensity. If there is any question as to whether the sound which is heard is bronchial, it can easily be settled by comparison with the sound heard over the larynx and trachea in front of or above the seventh cervical spine behind.

The respiratory sound heard normally in infancy, and childhood up to about 12 years, is different from that heard in adults, being a modification of the vesicular toward the bronchial; that is, bronchovesicular but near the vesicular end. It is known as "puerile". This type of respiration, especially if it is loud, often confuses physicians, in being mistaken for bronchial. Puerile can always be distinguished from bronchial respiration by listening over the trachea. Bronchial respiration is heard normally over a wider area at the root of the lungs in the back in infancy and early childhood than in later childhood and adult life. It is almost always heard in the interscapular space and may even extend a little beyond the inner border of the scapulas. The relative prolongation of expiration to inspiration in bronchial respiration is much less constant in infancy and early childhood and is of very little importance in comparison with the character of the sound. In adults, the respiratory sound at the right apex has a little admixture of the bronchial element, and expiration is slightly prolonged. In infancy and up to late childhood the respiratory sound is the same at both apices and the expiration is not prolonged at the right apex.

The respiratory sound is often so feeble in infancy, especially if there is disease of the lungs, that it is impossible during ordinary respiration to determine its character. When this is the case, the baby must be made in some way to cry and thus to take a long breath. In auscultation, the crying of the child does not usually disturb the examiner as it does in percussion. In fact the cries rather give enlarged opportunity by bringing out indistinct sounds which can be heard clearly only at the height of respiration. If this is not done, a satisfactory examination is impossible. The respiratory sound is diminished on the down side in babies and young children when they lie on the side. Physicians often forget this and mistake the relatively loud puerile respiration on the up side for bronchial respiration.

The voice sound is made in the larynx and, like

the respiratory sound, transmitted downward unchanged through the trachea and bronchi. This sound is heard normally in the same situations as bronchial respiration and, like it, is known as the "bronchial" sound. When this sound is transmitted through solid tissue, it is changed in character and is called "normal". A better term for it is "vesicular". The whispered voice sometimes reveals changes which cannot be detected with the spoken voice. Babies cannot and young children often will not speak. Reliance then has to be placed, of course, on the cry. In general, it is more difficult to recognize changes in the voice sounds than in the respiration. On the other hand, a change in the character of the voice sound can often be detected before there is any change in the respiratory sound, when there is beginning solidification in the lungs. In adults, the voice sound at the right apex is changed a little from the normal sound heard at the left apex toward the bronchial. This is not so in infants or in children before adolescence.

Sounds similar to râles may be made in the nose and pharynx. These sounds may, in infants and young children, be transmitted downward and heard over the lungs. If they are made in the upper air passages they can be heard over the trachea, both in front and behind, and are the same on both sides of the chest, back and front. They can also be heard over the neck and sometimes over the cheeks. Râles made in the bronchi are not heard in these situations and are never exactly the same on the two sides of the chest, back and front.

Although infants and young children have inflammation of the pleura, especially with pneumonia, just as often as older children and adults, pleural friction sounds are hardly ever heard in them. Friction sounds are just as common in middle and late childhood as in adults.

It is much more difficult to determine the tactile fremitus in infants and young children than in older children and adults. They refuse to speak loudly enough. In such instances the fremitus must be determined from the cry. Sometimes the voice is so thin that no fremitus can be detected. The elasticity of the chest wall also modifies the fremitus and may lead to erroneous conclusions. In general, the tactile fremitus is of relatively little value in early childhood in comparison with auscultation, percussion and the sense of resistance. It is of more value in late childhood.

Dr. E. C. Chew presented a very comprehensive report embodying the number of cases admitted to the Medical Service, with their classification and final disposition. There was a total of 105 cases with a death rate of 17%. The case reports were then reviewed by Dr. Clarence L. Andrews, Associate to Dr. Chew, who presented a complete discussion of the cause of death in each case. Dr. Andrews concluded his report with a presentation of an excellent dissertation on "Typhoid Fever and its Influence on Communities in the Past". This paper will be published in an early number of the Journal of the State Society.

A joint discussion followed the report of the 3 above mentioned, surgical, pediatric and medical services. Upon proper motion the meeting was adjourned.

#### BERGEN COUNTY.

H. B. Wolowitz, M.D., Reporter.

On December 14, the Bergen County Medical Society held a meeting at the Hackensack Hos-

pital, Dr. F. S. Hallett presiding, in the absence of the President.

Drs. C. W. Byers of Rutherford, R. M. Anderson of Hackensack, H. D'Agostin of Cliffside, and L. Black of Rutherford were elected to membership.

Compulsory semi-annual medical examination of all members by a group of examiners to be appointed by the society, was urged by Dr. R. Gilady. A committee of 2 to draw up a set of proposals is to be appointed by the President.

Dr. Henry A. Riley, of New York, read a paper on "The Neurologic Aspect of Low Back Pain". Lantern slides were used for illustrations.

#### Meeting of the Associated Physicians of the Hackensack Hospital.

S. T. Snedecor, M.D., Reporter.

The monthly staff meeting was held at the hospital November 15. An unusually low mortality of 12 patients was noted for the month of October; of these 8 were surgical cases, 3 medical and 1 aurial. This mortality rate was about 50% below the average, although just as many patients were treated in the hospital as other months, and it corresponds fairly well with that in outside practice; it would seem that the October bacteria were of low virulence.

Four case histories were presented:

(1) Chronic Mastoiditis with Cerebral Hernia, by Dr. Vandersluijs. One year before this child had been operated on at another hospital for acute mastoiditis, but after-treatment had been neglected by the parents. On admission, the patient was pale, anemic, debilitated, and running a septic temperature. Over the right mastoid region, a granulating mass the size of a walnut protruded. There was a foul discharge. At operation, this mass was found to contain brain tissue which was infected and had to be removed along with the exuberant granulations. Little hope for recovery could be offered in such a case, and, in fact, general meningitis set in, followed by death in 2 days.

(2) Extreme Dilatation of the Stomach Due to Duodenal Ulcer, by Dr. George Finke. The patient gave a history of epigastric pain and distress of long duration. The previous week he had vomited several times a day and on admission could retain nothing. Constipation was severe. He presented a distended, tense abdomen, very tympanitic and without fluid wave. Tenderness was found in the epigastrium. Gastric lavage was unsuccessful. A tentative diagnosis of carcinoma of the stomach with complete obstruction was made, and the abdomen opened at once. An enormously dilated stomach seemed to fill the whole abdominal cavity. It was incised and about 2 gallons of bile-stained fluid and undigested food was aspirated. The obstruction was found to be due to a constricting ulcer at the cap of the duodenum practically obliterating the lumen. A posterior gastroenterostomy was performed and the patient returned to the ward in poor condition. He rallied somewhat for a time but the toxemia was apparently too great.

(3) Fracture of the Fifth and Sixth Cervical Vertebrae with Laminectomy Showing Complete Severance of Cord, by Dr. S. T. Snedecor. Man, aged 28, was thrown off the back of a moving truck, striking on his shoulders and back of neck. On admission to the hospital, he was



found to be completely paralyzed below the level of the sixth cervical vertebra. All the reflexes were absent. The arms lay in that peculiar position which is diagnostic of the level of the lesion; abducted and internally rotated at the shoulders, flexed at the elbow and pronated at the wrist. X-ray examination showed a comminuted fracture of the bodies and lateral processes of the fifth and sixth cervical vertebrae. Feeling that the patient's only hope lay in the possibility that his paralysis might be due to pressure of some of these fragments on the cord, or a hematoma, immediate operation was done. Incision was made under regional block. The loose pieces of the spines and lateral processes were removed, exposing the dura. A small nick in the dura showed that the cord had turned into a yellow pulp. The patient died a few hours later.

(4) Dr. Snedecor presented also a patient who had suffered complete paralysis below the level of the seventh cervical vertebra 3 years previously. The injury to his cord occurred instantaneously when diving, but no fracture or dislocation of the vertebra could be proved. Dr. Elsberg, of New York, examined him a few days after the injury and gave him a bad prognosis. He considered that a laceration of the cord had resulted from a dislocation of the vertebra which, however, had spontaneously reduced itself. For over 2 years the patient was bed-ridden. Cystitis developed and was conquered. Decubitus likewise. Improvement in his functional control began after a year and has steadily progressed. He now has bladder and rectal control. Function has returned in fair degree to the muscles of his arms, except the interossei which leaves the grasp of both hands weak. This indicates the cord is functioning well down to the level of the eighth cervical with enough innervation below that to control the bladder and rectum.

#### Associated Physicians of Hackensack.

On December 20, the regular monthly meeting of the Associated Physicians of the Hackensack Hospital was held with 28 members present. The mortality discussion was as follows:

"Acute Miliary Tuberculosis in an Infant", by Dr. George M. Levitas, of Westwood. The interesting features of this case were the rarity of the disease and the diagnosis made before death and confirmed by autopsy. Colored baby, 1 yr. old, with cough and fever for 3 weeks previous to admission, thought to have been due to pneumonia. A marasmic infant that would cry if anyone came near the crib. Many râles were found throughout both lungs and a diagnosis of bronchopneumonia was made. Temperature ranged from 100° to 102°. Blood count: on admission 8800, 60% polys; one week later it rose to 18,000. The urine showed albumin and acetone. The baby became progressively worse, with a septic temperature. Treatment in the main consisted of forced fluids and daily hypodermoclyses. The x-rays seemed to show a bronchopneumonia but the condition did not behave typically and 2 days before death it was noted that it resembled more a miliary tuberculosis.

Postmortem specimens were presented by Dr. R. Gilady. Brain negative. One tubercle found on the heart. The spleen and liver were well studded. Both lungs were solid with tubercles.

"Thrombosis of Popliteal Artery", by Frederick S. Hallett. Man, age 72, first seen 1 week before admission. Sudden attack of sharp pain

through whole left leg. The skin was pale and cold and sensation absent below the knee. The leg slowly became gangrenous. Before onset, the patient had been an active worker. Removed to hospital. Mid-thigh amputation under spinal anesthesia. Patient rallied for a time but died 4 days later.

Discussion of this case sought to bring out the differential diagnosis between embolism and thrombosis; also to define whether this was a type of senile gangrene or of thrombo-angiitis obliterans.

Dr. George W. Finke read a paper on "Meckel's Diverticulum", based on 2 case records of recent operations at the hospital.

Meckel was a German anatomist of the seventeenth century. The diverticulum to which his name is attached is a remnant of the vitelline duct. The rarity of the condition is attested by statistics of the Mayo Clinic; 15 cases were found in 10,000 operations, and of these, 10 were found by incidental exploration. They are 3 times more common in male than in females. As a rule the diverticulum comes off the gut opposite the mesentery and about 14 in. from the ileocecal valve, although it has been found from 4 to 36 in. away. Five per cent of all cases of intestinal obstruction are due to Meckel's diverticulum. It may form a pouch, or it may connect 2 loops of gut or be just a fetal band.

The symptomatology is based upon inflammation, gangrene, or obstruction, but is not very significant of the true condition. The treatment is of course surgical. Removal at the base, with stump inverted by purse string, is usual procedure but sometimes this so narrows the lumen that a resection is necessary. The prognosis of these cases is not very good.

Dr. Finke then gave the history of 1 case with symptomatology simulating appendicitis and of another causing intestinal obstruction from a volvulus.

#### Medical Club of Hackensack.

Spencer T. Snedecor, M.D., Historian.

At the meeting on December 1, Dr. Thomas L. Caldrony presented a paper on "Neurasthenia", covering the subject as a clinical entity of many phases. He outlined the etiology and symptoms which afforded a clear picture of the disease. The most prominent symptoms are physical and mental fatigue, which so manifest themselves as to prevent the individual from doing his usual work. For those thus afflicted the Weir Mitchell treatment gives the best results. This includes absolute rest in bed, high calorie diet, massage, baths, electricity and isolation.

At the meeting on December 15, Dr. Donald A. Curtis read a short paper on "Salivary Calculi," with a recent case history in which he had extracted the calculus. A brief extract follows:

Anatomically, we know there are 6 salivary glands, each with its own excretory duct, 3 on each side of the face. The parotid gland we shall ignore, save to mention that its duct is known as Stenson's duct.

The submaxillary gland is situated just below the jaw in the anterior part of the submaxillary triangle of the neck. Its duct, known as Wharton's duct, is about 2 inches long, passes forward and inward, lying close to the lingual and hypoglossal nerves, opening by a narrow orifice on the summit of a small papilla on the side of the frenum of the tongue. While the outlet is small,

there is a fusiform dilatation immediately back of the outlet, where a foreign body may lodge, and be pushed further back by chewing. This accounts for the greater frequency of foreign bodies in this duct.

The sublingual gland has a series of 8 to 10 excretory ducts, known as the ducts of Rivinus, which open separately into the mouth on an elevated crest of mucosa on either side of the frenum. One or more of these ducts form a common tube, called the duct of Bartholin, emptying into Wharton's duct.

Ashurst states that salivary calculi are not uncommon, and that they are caused by bacterial action on the secretion of the gland. They obstruct the excretory duct, cause secondary enlargement of the gland, and mild inflammatory symptoms, or occasionally recurrent attacks of colic. They are most common in the submaxillary gland, and may often be palpated in the floor of the mouth beneath the mucosa. Treatment is either removal by incision through the floor of the mouth, or, more rarely, removal of the gland is necessary.

Rehberger writes that calculi, or foreign bodies, cause a painful swelling of the gland, immediately after meals, with slow subsidence in the intervals between meals. Diagnosis may be made by palpation, probing or x-rays.

Moorehead-Dewey states that calculi are rare, that they are caused by primary pathology involving the wall of the duct, or alterations caused by a foreign body. The stones contain calcium phosphate or carbonate, epithelium and organic substance, occasionally urates in gouty subjects. The stones have a lamellar structure, are usually white or grayish white, usually soft and friable, and rough; they are small and oblong, and vary in size from a millet seed to a pea, though some as large as a hen's egg have been recorded. The nuclei of the stones are foreign bodies or desquamated epithelium. They may be solitary or multiple, and are more common in men and very rare in children.

Foreign bodies (seeds, hair, tartar from teeth) may enter the gland or duct, and cause inflammation or calculus. They are apt, if retained too long, to cause an inflammation of the wall of the duct, (Sialodochitis), with periodic attacks and free intervals, which get shorter as the disease persists, and at times there is an acute onset with a chill. The swelling disappears as quickly as it comes, but some induration and enlargement persists, and may be mistaken for a true tumor, or tuberculous involvement. Persistent obstruction to the excretion of saliva causes a sialocele or ranula, which is a cyst-like dilatation of the duct. The glands themselves may become affected and suppurate, a condition which is fairly common in the submaxillary gland.

#### Case Report.

Female, age 55, came to office complaining of following symptoms for past week: Pain in mouth, cheek and jaw on left side, increased on chewing, with periodic swelling within mouth, and vice versa. There were no chills or fever.

Physical examination: There was a swelling the size of a pea to the left of the frenum of the tongue, and a tortuous swelling along the floor of the mouth extending laterally. Swelling was soft, elastic, fluctuating, tender and could be milked back from frenum, causing severe pain and increased swelling below angle of jaw.

Diagnosis of obstruction to Wharton's duct was made, and hot, mildly antiseptic mouth wash, and external heat was advised. No im-

provement was noted the next day. So we attempted to probe the duct with a fine probe; without success. Finally we succeeded in passing a large curved Hagedorn needle, blunt end first, through the papilla, and along the duct. Withdrawal of this was followed by the discharge of a large amount of sero-pus, collapse of tumor and relief of pain. Probing was repeated the next 2 days; on the second day, after passing the needle nearly its entire length along the duct, a grating sensation was felt. After some manipulation we succeeded in engaging the foreign body in the eye of the needle and removing same. This was followed by a copious flow of sero-pus and relief of symptoms. There was free discharge for the next 2 days, with only slight swelling and pain, after which time normal saliva flowed, and all swelling disappeared. There have been no further symptoms, and no recurrence for 18 months.

The foreign body, which we exhibit, is ovoid, brown, hard, and the size of a large caraway seed. We are not certain whether it is merely a seed, or a small calculus.

#### CAMDEN COUNTY.

Grafton E. Day, M.D., Reporter.

The regular monthly meeting of the Camden County Medical Society was held at the Dispensary, on Tuesday evening, December 14, with the President, Dr. Alfred Cramer, in the chair.

The President announced that he had, in accord with the resolution of the previous meeting, appointed a Business Committee, which had organized with Dr. Joseph E. Roberts, as chairman; the other members being Drs. Deibert, Rogers, Barrett and Young. The committee reported an estimated cost for repairing and refurnishing our headquarters, and the Secretary was authorized to proceed with the work.

The following were elected to membership: Walter S. Grist, Collingswood, West; Charles L. S. Brennan, Gloucester; James L. Vaughan and Lawrence A. Marshall, of Camden. Applications for membership were read from Drs. R. G. Hays, Collingswood; W. D. Evans and Thomas P. McCoughly, of Camden. The resignation of Dr. F. W. Marcy, of Camden, was accepted with regret.

The Scientific Program was then presented by Dr. Louis H. Clerf, of Philadelphia, who gave a lantern slide demonstration of "Bronchoscopic and Esophagoscopic Cases of General Medical Interest". This was a most interesting and instructive demonstration of the work done at the Jefferson Medical College Clinic. The subject was discussed by Drs. L. B. Hirst, Reed Hirst, William Shafer, Joseph E. Roberts, Albert B. Davis and A. Haines Lippincott.

A vote of thanks was tendered Dr. Clerf for his presentation of a most interesting subject.

#### CAPE MAY COUNTY.

##### Ocean City Medical Club.

Marcia V. Smith, M.D., Reporter.

Owing to the fact that the medical practitioners of this county are so widely scattered over a large territory and that the County Medical Society provides for but 2 meetings per annum, the club, to meet monthly, for closer intercourse and more frequent exchange of experiences. The "Christmas" meeting was held December 18, at the home of Dr. Marcia Smith and was well



attended. Dr. Alvin E. Siegel, of Philadelphia, presented a paper on "A General Consideration of the Nutrition of Children", which was much enjoyed, and which will appear in the Journal later.

### GLOUCESTER COUNTY.

Henry B. Diverty, M.D., Reporter.

The Gloucester County Medical Society met at the Woodbury Country Club, December 16. The following members were present: Drs. Nelson, Stout, Underwood, Lummis, Knight, Diverty, Campbell, Buzby, Downs, Burkett, Hollinshed, Wood, Duffield and Pegan.

Dr. Emma Richardson, delegate from Camden County, and Dr. Reik, of Atlantic City, Editor of the State Medical Journal, were guests. Dr. Reik gave a moving picture demonstration of periodic health examination, which was very interesting and instructive.

The meeting was followed by a luncheon.

### HUDSON COUNTY.

M. I. Marshak, M.D., Reporter.

The Hudson County Medical Society met at the Jersey City Hospital on December 7, with Dr. W. Friele presiding.

Dr. Miner, reporting for the Special Committee on Traffic, said that they had held a conference with the City Commissioners and that they had received a promise that the police would be lenient with physicians in regard to the new parking regulations; also, that a special parking space, in Bergen Square, had been allotted to physicians. The committee also wished to recommend that insignia be obtained from State Motor Vehicle Commissioner Dill. Dr. Reik, the Executive Secretary of the State Society, spoke on the question of insignia and said that Commissioner Dill had recently announced that he would recognize the A. M. A. insignia, as well. The question of insignia was referred back to the committee for further conference with the authorities.

Dr. Quigley brought up the question of having sectional meetings, because of the large membership of the society. This, on motion, was referred to a special committee.

Dr. Miner read a summary of the financial standing of the society and announced that there was a bank balance of \$7724.59. He asked permission to place all over \$2000.00 in a savings account. As the Treasurer under the Constitution has the option of placing the monies of the organization as long as it is with a safe depository, he was ordered to carry out his own recommendations.

Drs. Woodruff, Niemeyer, Larkey, Perlberg and Londrigan were appointed on the Annual Dinner Committee.

Dr. Reik spoke of the growth of the Journal, which has increased from 32 to 76 pages of reading matter monthly. He attributed a part of the increase to the work of the various Reporters for the constituent county societies and various medical groups and clubs. He also called attention to the publicity program of the State Society, which consisted of talks and demonstrations before lay societies and clubs, especially stressing health examinations. He felt that this work has succeeded so well that the laity seem to have accepted the idea with greater allacrity than has the average practitioner. The State Society has a moving picture film demonstrating routine examinations, which Dr. Reik hopes to

be able to show before this society in the near future, through the courtesy of Dr. O'Hanlon, Superintendent of the Jersey City Hospital. He then told of the work done in post graduate instruction and also in gathering data for a Medical Directory for New Jersey. Dr. Reik called attention to the following acts before the present Congress: (1) For the extension of the Sheppard Towner Act. (2) An amendment to the Harrison Narcotic Act, called the Smoot-Green Bill, making the revenue collector and the local druggist the judges as to what constitutes proper treatment of addicts. (3) The Lye Bill, for properly labeling and safeguarding the sale of lye.

The first 2 bills, he thought were vicious and interfered with the constituted rights of the medical profession and asked that each member communicate with his Congressman and Senator about the matter. The third bill is a very good one and should get the support of the profession. The State Society has already communicated with the New Jersey Congressmen and Senators in regard to the attitude of the Medical Profession on these bills.

Dr. George I. Swetlow, of the Montiflore Hospital, spoke on the "Alleviation of Pain by Neurone Block", which he illustrated with lantern slides. He told the story of the experimental work which led up to his work on humans and illustrated the way in which nerve cell bodies change after alcoholic injections. They become round, the nucleus becomes excentric, the chromatin material disappears and the cell dies. This same phenomena occurs after severing the nerve. After alcohol injection into a nerve there is a gradual degeneration of the fibers. He showed slides made after a varying number of days, to show how this occurs. An 80% alcoholic solution was strong enough to destroy the myelinated or motor fibers, while a 60% solution destroyed the unmyelinated or sensory fibers only. He then told of the attempts of Janesco, Lillenthal and others to treat the pain of angina pectoris with various types of operations on the afferent fibers from the heart, cutting the sympathetic ganglia on one side or the other. These attempts all met with rather disastrous results. He demonstrated the pathway of pain from the heart by way of the superior, middle and inferior cardiac nerves through the first to seventh cervical segments, and through the aortic nerves to the dorsal root ganglia. These nerves inosculate with the vagus and with each other, which explains why operations were not satisfactory. All impulses must pass through a spinal root ganglion. These ganglia have both large and a small bipolar cells. The large cell sends fibers through one pole to the skin and through the other to the sympathetic chain. The small cell also sends a fiber to inosculate with the large cell. Because of these facts hypersensitive skin zones, as demonstrated by touch, heat and pin prick, give an indication of the root ganglia receiving the pain stimulus and these have to be destroyed in order to prevent these pain impulses from reaching the brain.

In treating cases it must be borne in mind that this procedure should only be used where pain is not amenable to other forms of treatment and that it does not prolong life, aside from the prolongation that relief of pain alone will give. It is enough to have the alcohol seep about the ganglia and not necessary to inject directly into them. Dr. Swetlow has treated 16 cases of angina pectoris with this method and immediately relieved the pain in all, one treatment being sufficient for the area of hypersensitiveness involv-

ed. At present the oldest case has been relieved for 18 months.

Gastric crises are of 3 types, one gives only pain, the second only vomiting and the third both pain and vomiting. If these impulses are being transmitted through the spinal root ganglia only, both symptoms can be relieved. If however, all or part of the impulses are transmitted through the vagus, only that portion of the symptoms can be relieved whose impulses travel through spinal root ganglia. At the end of 6 months new pathways may be developed, which will have to be destroyed.

In treating pleuritic pain of neoplastic or tuberculous origin, skin tests will indicate which roots are irritable and these will have to be destroyed. For a few days after the injections there is some local pain which can be treated with hot wet packs. In tongue malignancies it is necessary to destroy the gasserian ganglion. The same holds true for tic. In rectal cases, alcohol should be injected into the epidural space. In tuberculous laryngitis the superior laryngeal nerve must be reached. Work along these lines is being contemplated for nonspecific asthma.

Drs. Jaffin, Miner, Von Diesten, Brandenburg, Friele and Swetlow entered into the discussion.

#### Osler Clinical Society.

M. I. Marshak, M. D., Secretary.

The regular meeting of the Osler Clinical Society was held at the Union League Club of Jersey City, December 15, 1926, with Dr. A. E. Jaffin presiding.

Dr. Miner presented 2 rare cases of osteomyelitis. The first was in a boy of 14 who had an injury to the left shoulder. A few days later he developed severe pain over the left scapula, chills, fever and delirium. The area over the left scapula was markedly swollen, reddened and exquisitely tender. On operation, he evacuated 3 separate abscesses. In a number of steps, it was necessary eventually to remove all of the scapula except the coracoid process. At present there seems to be an almost complete regeneration of the scapula as visualized on the x-ray plate and easily made out by palpation. The second case was chronic in character, lasting about 18 months, and having many diagnoses attached thereto before operation. The signs and symptoms consisted of pain over the manubrium increased by cough, with swelling and tenderness over the same area but no redness. The entire manubrium was removed as a sequestrum. In the first case, staphylococcus albus was isolated and in the second the aureus.

Dr. Siegler presented a case of fracture of the carpal scaphoid. The patient fell on the dorsum of his hand 7 years before. The results of the injury being pain and swelling of the wrist on the least exertion, with limitation of extension of the wrist. The scaphoid was removed about 1 year ago, since which time there have been no symptoms; the hand is strong and has no limitation of movement. These cases were discussed by Drs. Miner, Friele, Doran, M. Shapiro and H. I. Franklin.

Dr. A. E. Jaffin presented a case of auricular flutter with a pulse rate of 230. On vagus pressure, the rate could be easily reduced to 100. He showed electrocardiograms of the case. There was an associated hypertension and hypertrophy with mitral and aortic murmurs.

Dr. M. Shapiro read a paper on "Heliotherapy". He gave an outline of the history of the therapeutic use of the solar rays, especially in

wounds, anemias, tuberculosis and rickets. He discussed the physics of light and stated that fluorite and quartz are the only satisfactory solid media for transmitting the ultraviolet rays. The physiologic effects of the ultraviolet rays were next entered into and he said that these effects were due to some photochemical action not yet fully understood; that cell bodies absorb these rays and the shorter the ray the more easily it is absorbed. There is an increase in energy and metabolism produced by the absorption of these rays with a strong remote effect on the spleen and lungs. Penetration can be increased by blanching the part exposed, by pressure to remove the blood. He mentioned that the ultraviolet rays have been found of value in extrapulmonary tuberculosis, neurasthenia, rheumatic pains, diseases of the female generative organs and especially in a long list of skin disorders and diseases.

Drs. Pollak, Marshak, Kelly, Perlberg, Blanchard, Heilbrun, Miner, Jaffin and M. Shapiro discussed the paper. During the discussion, the indiscriminate use of these lamps was decried and the commercialized methods of one of the manufacturers of the lamp who is placing it in the hands of the cultists, barbers and beauty parlors, was deplored.

#### MERCER COUNTY.

The society held its annual meeting in the Carteret Club on December 8, President Comfort presiding. The usual order of business was suspended for the purpose of devoting as much time as possible to the address of Dr. John B. Deaver, who spoke on the subject, "Mistaken Diagnosis of Gastric Ulcer". The vocabulary of the Secretary is totally inadequate to express the intellectual treat set forth by Dr. Deaver. (Dr. Deaver promised to forward the paper to the Editor of the State Journal for publication.)

Following the laudatory remarks of several of the members in discussion of this address, the regular order of business was resumed.

The following officers were regularly elected for the ensuing year: President, John B. Still; Vice-President, Charles R. Sista; Treasurer, Harry R. North; Secretary and Reporter, A. D. Hutchinson; Board of Censors, G. N. J. Sommer; Member Nominating Committee, J. J. McGuire; Member Nominating Committee Alternate, H. B. Costill. Annual Delegates: J. M. Schildkraut, D. L. Haggerty, Nathan Swern, J. S. Vanneman, P. E. Kuhl. Alternate Delegates: Lawrence Rogers, B. D. Lavine, C. C. Chianese, H. D. Williams, Samuel Sica.

Drs. C. G. Guthrie, J. F. Pessel, H. M. Rowan, Thomas Alsop and S. H. Iams were regularly elected as active members; Drs. A. D. Summers and C. C. Franklin were elected as Associate Members.

Luncheon followed adjournment.

#### MIDDLESEX COUNTY.

John H. Rowland, M.D., Reporter.

The annual meeting of the Middlesex County Medical Society was held at "The Pines", December 15, 1926. The meeting was called to order by the President, Dr. J. P. Schureman, at 4 p. m. Attendance numbered 60, members and guests. The minutes of the previous meeting were read and accepted.

The report of the Nominating Committee was as follows: President, F. C. Henry, Jr., Perth Amboy; Vice-President, F. M. Hoffman, New Bruns-



wick; Secretary, Joseph M. Gutonski, Perth Amboy; Treasurer, F. C. Johnson, New Brunswick. Annual Delegates to State Society: R. L. McKiernan, New Brunswick; E. F. Klein, Perth Amboy; A. L. Ellis, Metuchen. Alternates: J. F. McGovern, New Brunswick; C. F. Merrill, Highland Park; I. T. Spencer, Woodbridge. Permanent Delegates: John G. Wilson, Perth Amboy; J. P. Schureman, New Brunswick; M. S. Meinzer, Perth Amboy; G. W. Fithian, Perth Amboy; H. C. Voorhees, New Brunswick; B. Gutman, New Brunswick; J. F. Anderson, New Brunswick.

Upon proper motion the report of the Nominating Committee was accepted and the above named officers declared elected.

The Membership Committee reported that the application of Dr. W. Smith McLeod, of New Brunswick, was approved and he was duly elected a member of the Society.

Under unfinished business, Dr. R. L. McKiernan suggested ways and means of correcting or improving the work of the county physician. Upon motion of Dr. McKiernan, it was decided that a committee of 5 should be appointed to go before the Middlesex County Board of Freeholders regarding the inefficient conditions of the office of the County Physician.

Motion was made by Dr. R. L. McKiernan and passed that a committee be appointed to plan for formation of a Middlesex County Anatomical Society, to work in conjunction with the County Physician.

Application for membership was received from Dr. A. X. Urbanski, Perth Amboy. This was referred to the Membership Committee.

Dr. Costill, of the State Department of Health, gave a talk, with the aid of pictures, on the work of the State Department of Health and its help to physicians.

Following this, Dr. Reik, of Atlantic City, talked to the Society, with the aid of moving pictures, on The Technic of Physical Health Examinations.

A vote of thanks was given to Drs. Costill and Reik, and the meeting adjourned.

The Members then enjoyed a pleasing dinner.

#### Rutgers Medical Club.

John H. Rowland, M.D., Secretary.

The Rutgers Medical Club of New Brunswick held its monthly meeting on November 19, 1926, at 8:30 p. m., in the Alumni House, Queens Campus, Rutgers University.

The usual business was postponed until after the speaker of the evening was presented. Dr. John F. Anderson, Director of E. R. Squibbs and Sons Laboratory of New Brunswick, presented a paper on the "Most Recent Progress and Treatment of Scarlet Fever, Erysipelas and Measles".

Discussion was opened by Dr. Leonard, a club member and also on the staff of the Squibb's Laboratory. After a long and full discussion, a short business session was held.

#### MONMOUTH COUNTY.

D. F. Featherston, M.D., Reporter.

The Monmouth County Society held its November meeting at the Garfield-Grant Hotel at Long Branch, Wednesday evening, November 24. Plans were made for the annual meeting to be held in Freehold in December.

Dr. McBride, Commissioner of Labor of the State of New Jersey, spoke to the gathering on

the "Workmen's Compensation Act". He explained the workings of the act from the viewpoint of the doctors' treatment of cases, taking up in detail the legal standing of the doctor in handling cases of this type. The members were very much benefited by an informal discussion, which followed Dr. McBride's talk, in which many details of the act were made clear to them.

The annual meeting of the Monmouth County Medical Society was held at the Country Inn, Freehold, December 14, 1926, with 31 members present.

Dr. O. K. Parry reported that he had a communication from Dr. Andrew F. McBride, Commissioner of Labor of the State of New Jersey, in regard to the appointment of a member of the local society to act on a committee to take up the matter of contested bills submitted to insurance carriers for treatment rendered under the Workmens Compensation Act. The society appointed Dr. D. F. Featherston, of Asbury Park, to act in this capacity.

Dr. William H. Von Oersen, of Bradley Beach and Asbury Park, a graduate of the Cornell Medical school, class of 1924, was elected to membership.

It was regularly moved and adopted that the annual dues be increased by \$1.00 making the amount now payable \$14.00.

A Nomination Committee, Drs. Fisher, Fairbanks and Herrman, reported the names of the following members to be the officers for the year 1927, and all were duly elected: President, B. H. Garrison of Red Bank; Vice-President, John C. Clayton, of Freehold; Secretary, D. F. Featherston, of Asbury Park; Treasurer, R. A. Watkins, of Belmar; Censors, Harry Ingling, of Freehold; W. G. Herrman, of Asbury Park, and James F. Ackerman, of Asbury Park; and, Reporter, Frank J. Altschul, of Long Branch.

The next meeting of the society will take place at the Garfield-Grant Hotel in Long Branch on January 26, 1927.

#### MORRIS COUNTY.

Marcus A. Curry, M.D., Reporter.

The December quarterly meeting of the Morris County Medical Society was held on the evening of Tuesday the fourteenth, at "Day's Colonial Restaurant" in Morristown. President Plume presided over a rather good gathering; about 35 members.

Routine business was handled with expedition and without dissenting voice.

Two new members were unanimously elected to the society: R. L. Gilbertson, of Madison, and Walter Tanner of Morristown.

Secretary Lathrope reported on various matters handled and arranged by the Executive Committee, which indicated alertness to the promotion of the best interests of the society.

For the March meeting in Dover, the Executive Committee has decided upon a symposium, by the members, on "Toxemias of Pregnancy". Those familiar with the splendid set of papers presented at the symposium last March are justified in looking forward to something well worth while in the forthcoming symposium. Two special meetings have been planned; one to be held in Morristown the latter part of January, on the subject of "Goiter"; the other to be held in Dover the latter part of April, the subject to be decided upon later.

Secretary Lathrope submitted and read a communication from Olin West, M.D., Secretary of the American Medical Association, accompanied by a report of the Committee on Medical Relief in Disaster, adopted by the House of Delegates at the Dallas session, which asked that action be taken by the county society and the secretary advised of the action. Dr. Lathrope explained the action of the executive committee and the reply to the communication, that the President of the County Society should be the head of the committee on Medical Relief in Disaster in his county and that in its workings it all pyramids to the President of the State Society, who is head of the state organization in the matter. The action of the Executive Committee was unanimously approved.

Secretary Lathrope presented and read a communication from Henry O. Reik, Executive Secretary of the Medical Society of New Jersey, on Public Health Program and the plan to provide moving picture projection apparatus and a series of films to meet the wishes of different organizations, lay and medical.

Dr. Reik's communication further stated a desire to arrange now a lecture itinerary for the winter months and invited advice of any opportunity to spread the gospel in your neighborhood, and finally offering to show a film of details of routine physical examination at any county meeting as part of the program for the promotion of interest in periodic health examinations.

Secretary Lathrope appealed to the members in the different localities to give the Educational Program consideration and offered his cooperation in arranging for the carrying out of the program indicated.

The speaker of the evening was Dr. Howard H. Mason, Attending Pediatrician at the Presbyterian Hospital, New York City, whose subject was "Prophylaxis in Pediatrics".

In an address of easy delivery and understanding, Dr. Mason covered his subject with much clarity and interest. As the paper is promised for publication in the Journal, no attempt will be made here to do it justice, beyond saying that it was an able and comprehensive presentation of the subject. It kindled much interest and was taken up for discussion by Drs. Haven, Larson, Krauss, Lathrope and Glazebrook. All questions asked were cheerfully and adequately answered by the speaker of the evening.

The meeting was topped off by a social session during which refreshments were served, which effected a pleasing climax of an interesting evening.

#### Clinic Held at Physiatrie Institute, Morristown.

N. J. Dr. Frederick M. Allen, Director,  
M. A. Curry, M. D., Reporter, Morris County

A clinic on "The New Treatment of Pernicious Anemia" was held at The Physiatrie Institute, Morristown, New Jersey, on Saturday afternoon, December 18, 1926.

The invitations sent out by Dr. Frederick M. Allen, Director, drew together an attendance of physicians estimated as between 125 and 150, from New Jersey, New York and Pennsylvania, chiefly, and some from the Middle West. The group included general practitioners, specialists, university professors, and State Department and Institutional heads; among the latter group from New Jersey noted were Dr. Henry B. Costill, Director of the Department of Health; Dr. Henry A. Cotton, Medical Director State Hospital at Trenton; Dr. David F. Weeks, Superintendent

the State Village for Epileptics at Skillman; Dr. M. A. Curry, Superintendent the State Hospital at Greystone Park; Dr. George W. King, Superintendent Hudson County Hospital; and Dr. Augustus S. Knight, Chairman of the Medical Committee Board of Managers of the State Hospital at Greystone Park.

Director Allen gave a review of the research that had been carried on for about 1½ years, or since March, 1925, when he sent out circulars asking for severe cases of anemia to be treated without expense, just to see how such a research would work. He stated the reason for holding the clinic was simply that at rather rare intervals something comes up that seems to be worth presenting in this general line of work—the study of metabolic disorders; that this is only the third clinic the Institute has held in its 6½ years of existence in Morristown and this clinic is held because there seem to be developments in anemia that are worth reporting; that some of you may have read or have had experiences of the same sort of thing we shall present.

We are specialists in this sort of work. We have opportunity of observing cases under standard conditions and our series is larger than what the average practitioner will see in a year or so; may be larger than some of you have seen who specialize in this work.

As to the cause of severe anemia, especially "pernicious", so-called, we have nothing particularly to add. We are still dealing with a disease whose etiology is not proved. There are various theories. People scarcely consider any more the disease is due to any continued infection of a specific nature. The most widely prevalent view is that it results from some infection or intoxication, in the first place, that might be of different kinds in different cases. Our own notion is that it is a varying kind of disease in its origin. Perhaps the streptococci may be mostly suspected as the original cause. We think very favorably of the view that the teeth may have much to do with the disease; because in so many patients we find badly affected teeth. It would be very logical that the infection may start in the teeth and the streptococci be swallowed and then might affect the intestines and gall-bladder, as recent study seems to indicate; it might set up digestive disturbances, and possibly the nerve lesions might come from primary infectious factors or from secondary trouble from the intestinal tract. That is a theory; nobody can say it is proved. Some people think the primary trouble is evident in the gall-bladder; others strongly suspect the intestines as the primary cause, because of the continued intoxication. That, again, isn't proved; we don't know.

Sometime back I rather timidly put forth the hypothesis that anemia might be classed among the metabolic disorders and among that group of disorders which has this characteristic: That it starts with some infection that damages a vital organ; then all sorts of influences, dietary and others, may increase this damage. That is a large group of diseases and diabetes is permanently in that group. The infection passes off but the diabetes remains. That is why we now know that the old view that diabetes is a progressive, hopeless disease, is wrong. In nearly all cases the infection passes away and the trouble is not progressive if you control the dietary overstrain; therefore, with diet and, if necessary, insulin, we can keep all diabetics from going downward, provided the focus of infection has been cleaned up. The same thing applies to renal vascular diseases. We believe that most



cases can be controlled; and if they are symptomatically approached and the thing is done thoroughly they can be held year in and year out without change for the worse, and, if anything, a change for the better. That statement is based on 8 years of experience, especially with cases of hypertension. In cases too severe to be controlled by strict diet progress will be downward; but if you can control the overstrain the disease should not progress downward after the infection has been cleared away.

Suppose the original damage in anemia is caused by infection, according to the prevalent view, it is then a question of controlling that infection. It seems in many cases the infection can be cleaned up. In bad teeth or tonsils, sinuses, gall-bladder or wherever the trouble is, it seems really important to clean up this infection. The first thing is to relieve the functional overstrain, if it exists, by a diet that will favor the blood-making organs, as far as possible. The problem of our research was then whether that could be done. The first patients had marked edema and they were put on a "salt-free diet" as one measure and they cleared up; the diet was tried on a larger series of cases and it seemed to be beneficial. The cases received were mostly severe ones. In the first stages, they have some edema and if you put them on "salt-free diet" they will raise 5, 10 or 15 pounds in weight in a short time; if this is the case the circulation is improved through the liver and bladder and that may be one factor in the benefit.

Dr. Allen gave a detailed account of the research they had carried on with anemias and the introduction of liver into the diet; stating that some patients now take a half pound of liver a day and the dietitian can frequently get them to eat a pound a day; that means a variety of cooking and a good deal of skill to get it right; especially as there are digestive disorders to be considered. They will take this quantity of liver with surprising ease. "I think there is no doubt that our results have improved greatly since we added this measure to our diet."

There still is work to be done in comparing the different results accomplished and I may add that nobody considers any of these factors in the diet a specific cure for anemia. The people who began to feed liver, didn't claim it to be a specific cure; but we are trying to find the best combination of diet for the blood formation and blood preservation.

One point to be emphasized is that the diet must be well prepared and the treatment definitely carried out. To give a diet "salt-free", crammed with liver, is not such an easy task; especially in dealing with patients with poor appetite.

Also rest and environment are favorable factors in the treatment; especially in the early stages. We think we get more rapid results and more favorable results here than when patients are at home.

As to measures of treatment besides diet, I may say that we have not had to use any transfusions. We have tried them and while they may serve as a radical measure, I am afraid they actually mean a setback. That means there is protein introduced which is foreign; this brings on a chill and generally the blood declines rather rapidly after the transfusion has been given. Iron is contained in the foodstuffs, such as vegetables, liver and various things. We have tried to give medicinal forms of iron; they at least did not harm and may have helped some. Patients without medication, but with diet, seem to

do as well as others. Arsenic we have used very little and only in the common anemic type rather than the pernicious type. You will be surprised also that we are not using hydrochloric acid, as there are digestive disturbances usually present. We omitted it because we are giving a diet of chlorides, and strange to say the digestion is just as good as anybody ever attained with hydrochloric acid.

Dr. Allen, nearing the conclusion of his address, which needless to say was of the kind that grips the attention, said: "That is the general outline and you may ask what we have to show that is good?"

(1) There is the mortality. Beginning March, 1925, we have had 35 cases. Of those, 5 were not of the pernicious type; of these 5 there was 1 death, a child; the other 4 are flourishing. I may say here that the diet works better on the secondary type than in pernicious anemia. We have 1 lady in this class who went down as low as a million and a half blood count for secondary anemia, without known cause for it. We treated her with salt-free diet alone and she picked up remarkably until she came back to five million red cells. She broke diet and went down to about two million red cells; she went back spontaneously to regular diet. She came back here and we put her on strict diet and she came back to a little over five million red cells. This is clinical evidence of value of a salt-free diet.

(2) In the pernicious group we reported on 30 cases. We have 40 cases now. The report was 7 deaths in that group. That has now swelled to 12 deaths among the 40 pernicious anemias. Remember that we asked for bad cases and mostly we got them. Many came practically on the point of death; cases of a million or less red cells. About 3 of those patients died from the severity of their anemia, without our being able to save them even by transfusion or arsenic or anything used. One patient that improved, died later from tuberculosis; others died because they wandered away and departed from the diet. The majority have died from nerve lesions; that is a thing we still dread. Nerve degenerations are a bad sign. Nerve lesions aren't due to the anemia. Apparently the original toxin that caused the anemia or some later intoxication is responsible for the nerve lesions. Therefore, we make no promise when we get a patient who has advanced nerve degeneration. The only good thing that can be said is that of the cases that came in without nerve lesions, we have not had a single patient develop them. The patient in severe stages often come in with considerable elevation of temperature. When we have cleaned up the infection, that has come down to normal. Another important sign is the yellow color, which supposedly means blood breakdown. When we see the yellow color clearing up, it probably means restoration of the corpuscles. Then improvement in the blood count and character of the blood cells is one of the demonstrable features which we will show in these cases today. That occurs with enough regularity and assurance to make us feel it is no accident.

In conclusion, Dr. Allen said "It is not claimed by anybody as a cure for pernicious anemia; as a matter of fact nobody cures diabetes, the acuteness may get well but the chronicity is there. It will help a great deal and many of those patients live out their full lifetime. That is all we can hope and time will tell whether our hope is realized. It has reached the point where we are glad to see the anemic patient; before, none of us were anxious for them."

Dr. Allen's address was followed by one from the Resident Pathologist, Dr. Lusk, who detailed the laboratory technic, after which opportunity was afforded for personal demonstration of the various tests.

Dr. Scharf then followed by presenting patients of the group already referred to, who in their enthusiasm over the results accomplished for them at the Institute volunteered to be presented as ocular evidences of what had been accomplished. In each case the clinical picture was presented at the beginning of the treatment and the course followed up to the now robust individual.

One could scarcely attend this clinic without feeling a definite rise of hope for fulfillment of the aim that underlies the intensive work that Dr. Allen is carrying on.

#### PASSAIC COUNTY.

Donald B. Low, M.D., Secretary.

The regular monthly meeting of the Passaic County Medical Society was held at the Health Center Building, Paterson, December 9, 1926. The meeting was called to order at 9.25 p. m., with 42 members present.

The principal speaker of the evening was Dr. John Wykeoff, of New York City, who read a paper on "Arteriosclerotic Diseases of the Heart". Included in his paper was a description of angina pectoris and its treatment.

The interesting paper was discussed by Drs. Hagen, Ryan, Wishnack and Gay BonKim.

Dr. Henry O. Reik, Editor of the State Journal, gave a talk on "Periodic Health Examinations", accompanied by a motion picture demonstration. The talk and picture were very interesting.

The applications of Drs. Morris Levine, T. D. VanOrden, and J. Lamauro, were read to the society and referred to the board of censors.

#### SALEM COUNTY.

William H. James, M.D., Reporter.

The Salem County Medical Society met in the Memorial Hospital, Salem, New Jersey, December 8, at 2:15 p. m., the President, Dr. David W. Green, presiding. Dr. George A. Davies, Secretary, read the minutes of the previous meeting which were approved as read.

After transaction of the regular business of the society, the essayist for this occasion, Dr. A. W. Phillips, Assistant Professor of Medicine at the University of Pennsylvania, presented "The Early Diagnosis and Treatment of Pneumonia". Dr. Phillips cited the symptoms of this disease very carefully, and the method of treatment as well, thus making it clear to all present. The treatment which seemed to produce the best results, if taken early, was Pneumococcus Antibody Solution, which is especially adaptable to the so-called Type 1 of Pneumonia; Types 2, 3 and 4 were not so successfully treated by this method. The mortality was as low as 8%, if given early in the Type 1 case. Digitalis was considered a better stimulant than strychnin or whisky; adrenalin solution in 15 m. doses was used hypodermatically as a last resort in severe cases. A discussion followed, participated in by everyone present.

The meeting was very well attended as compared with the 2 or 3 previous meetings. There were 14 members present: Drs. W. P. Glendon and L. E. Wyatt being present from Cumberland County.

At the conclusion of the meeting a banquet was served at the Hotel Johnson.

The next meeting will be held at the Memorial Hospital, February 9, 1927.

#### UNION COUNTY.

##### Westfield Medical Society.

Frederick A. Kinch, M.D., Secretary.

The 177th regular meeting was held December 9, 1926, at the home of Dr. W. W. Sisserson. President J. B. Harrison was in the chair. The regular routine business was transacted. Cases of typhoid fever, appendicitis and erysipelas were reported and freely discussed.

The paper of the evening was read by Dr. C. T. Decker, on "Rachitis". A general discussion followed: the general opinion was that these patients are benefited most by fresh air, sunshine, and sensible feeding.

After the meeting, the members of the society were entertained by Dr. and Mrs. Sisserson, and a vote of thanks was extended for their hospitality.

##### Summit Medical Society.

W. J. Lamson, M.D., Secretary.

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines, on Tuesday, November 30, 1926, at 8:30 p. m., with the President, Dr. Keeney, in the chair.

Twenty-four members were present, with Drs. Lathrope, of Morristown, and MacPherson and Silverstein, of Millburn, as guests. The absentees were Drs. Dengler, Hallock, Johnston, Meigh, Morris and Praeger.

The paper of the evening was read by Dr. Reiter, on "Periodic Health Examinations". This work is falling largely into the hands of institutions like the Life Extension Institution, the insurance companies, and others, when it should properly and most efficiently be done by the family physician, who, too often, is careless or has not the time nor inclination to do it. The public has been educated, by skillful advertising and other propaganda, to appreciate its importance, and even to demand it, and we should, as physicians, encourage it in every way possible, and see to it that these patients do not have to go elsewhere to have it done.

Dr. Clark called attention to the importance of minor symptoms which are often the precursors of serious conditions. Life insurance statistics as to the importance of these symptoms as affecting life expectancy, are unassailable. He urged careful, detailed pen-pictures and accurate records of all findings.

Dr. Lathrope stressed the same points, and called attention to the excellent pamphlet and blanks on this subject, available through the New Jersey State Medical Society's Executive Secretary.

Dr. Krauss took up the subject as relating to children, and cited cases showing its great importance.

The general discussion was interesting and spirited. The President was directed to appoint a committee to consider the best way to get this important subject, with its hearty endorsement by the Society, before our patients and the local public.

At a late hour the meeting adjourned and refreshments were served.



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## A RESUME OF THE CLINICAL INTERPRETATION OF SPINAL FLUID EXAMINATIONS.

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Director Laboratories, Atlantic City Hospital.

(Read before the Atlantic County Medical Society, Atlantic City, N. J., October 8, 1926.)

The history of medical progress is one of evolution, the marvels of yesterday becoming the commonplaces of today, the theories of today sometimes the facts, sometimes the fallacies of tomorrow; and it is only by a constant survey, study and rearrangement of available and constantly accumulating data that the alert physician can hope to keep abreast of the many kaleidoscopic minutiae which influence or control the modern study of disease.

Of recent years, due, in part, to the remarkable expansion and development of laboratory methods for the study of the mechanism and sequels of pathologic processes, and in part to an ever-growing recognition of the vital necessity for a constant correlation of the data secured by laboratory and clinical studies, whether separately or coincidentally conducted, there has been an enormous increase in the knowledge of the composition and characteristics of the cerebrospinal fluid under both normal and pathologic conditions.

Unfortunately, not all of the information obtained has appeared in publications easily accessible to the clinician. It is equally unfortunate that it appears as if more emphasis has been laid, at times, upon "tests" and "reactions" than upon the underlying

variations in the spinal fluid which are responsible for them; an emphasis which, without doubt, is responsible in no small measure for a certain degree of clinical confusion in the estimation of their diagnostic or prognostic significance.

It is the purpose of this communication to review as briefly and simply as may be some of the changes which may be noted in the spinal fluid under varying conditions, and to touch upon the mechanism and clinical interpretation of the more common methods of laboratory examination.

This might be attempted by presenting in a statistical array the results of such examinations in a more or less extensive list of selected pathologic conditions. Aside from the enforced pseudo-dictionary style resulting from such a method, there is the disadvantage that, with very few exceptions, there are very few definitely pathognomonic findings. Moreover—and this is of prime importance—the degree and extent as well as the character of the departure from normal, is definitely influenced by the extent and duration of the pathologic process involved, so much so that distinctly differing pictures may be obtained at varying stages of the disease in question.

A second method—the one adopted here—is to consider the underlying mechanism responsible for variations from the normal, and to present the underlying principles and mechanism of certain commonly used methods of examination with the idea that from these premises the underlying pathologic process responsible may be inferred or constructed.

Lumbar puncture appears to have been

first practiced in 1885 by Corning<sup>(1)</sup> as a rather desperate measure in the treatment of tuberculous meningitis. Its entrance into medical practice as a therapeutic measure, for the relief of pressure in hydrocephalus dates from the work of Quinke<sup>(2)</sup> in 1891, and our knowledge of the composition of spinal fluid begins with the monograph published by Mestrezat<sup>(3)</sup> in 1912. Since that time a voluminous literature has accumulated, too much of it, however, concerned with the application of some certain "test" and the nature or intensity of the response evoked in varied groups of cases.

Abnormality signifies a deviation from an accepted normal standard. It is necessary, therefore, to consider the character and composition of a normal spinal fluid which leads us to, or can be combined with, the normal response to the usual methods of examination; the step from this to a consideration of the variations noted and the underlying and responsible mechanism is natural as well as logical. The ordinary and commonly used methods for laboratory examination which will be touched upon in this paper are as follows: pressure; appearance; cell count; protein content; sugar content; colloidal gold reaction; complement fixation tests, and bacteriology. Within very recent years, with the development of accurate methods of microdetermination, much attention is being given to the chemical composition of the spinal fluid, this field, however, being as yet under investigation. It will not, therefore, be more than mentioned.

#### LABORATORY FINDINGS IN THE SPINAL FLUID.

*Amount:* The amount of fluid normally formed in 24 hours is unknown, and a matter of speculation. There is some reason to believe that it is completely absorbed and replaced from 4 to 6 times daily. Under these circumstances neither laboratory findings nor clinical inferences are possible concerning variations in the amount of the spinal fluid either in health or disease.

*Pressure:* Normally the spinal fluid pressure is slight, the figures usually given for adults being from 5 to 10 mm. of mercury or from 130 to 150 mm. of water. In the

absence of a manometric reading the pressure may be very roughly estimated—with due allowance for the bore of the needle—in terms of the flow in drops per minute; approximately 30 to 40 drops per minute being considered normal. It is important to remember that the pressure may be influenced by other than pathologic factors. Posture has a perceptible effect and the figures quoted above apply only when the site of the puncture is at the same level as the head, that is, when the patient is recumbent. In the erect position the pressure in the ventricles falls to zero or becomes negative while that in the lumbar region is definitely increased.

Solomon, Pfeiffer, and Thompson<sup>(4)</sup> have shown that the manometric reading taken immediately after puncture may be from 300 to 400% in excess of the pressure obtained at the end of 5 to 10 minutes, this latter reading often remaining constant as long as the patient is quiet and does not move. They believe, therefore, that pressure determination should not be read for a period of at least 10 minutes during which time the patient must be quiescent.

The pressure stated as normal in children is from 0 to 4 mm. of mercury or 45 to 90 mm. of water, but, as shown by McLean and Von Hofe<sup>(5)</sup>, extreme variations may be introduced by crying and uncontrolled movements, these observations being thus correlated with those of Solomon, Pfeiffer, and Thompson, just cited.

Abnormalities of pressure are practically always most common on the side of increased pressure. Very low pressure and the coincident collection of very small quantities, and especially when a free flow is obtained at a higher level may be—but is not always—suggestive of blocking of the canal by pressure; internal from neoplasm or arachnoidal adhesions, or external by trauma. In such cases, however, there will always be other and even more suggestive clinical and physical findings.

As the pressure of spinal fluid depends largely upon the intracranial venous pressure, it is found to be high in those conditions producing increased intracranial ven-



ous pressure, among which may be noted cerebral tumor, cerebral hemorrhage, hydrocephalus, meningitis and encephalitis. Syphilitic meningitis and general paralysis are rather constantly accompanied by increased pressure and, indeed, this may be one of the earliest abnormalities noted. It should be remembered that respiratory embarrassment, such as may be seen in the obese or highly nervous patient, may lead to increased venous pressure producing increased spinal pressure. Clinical inferences should be rather cautiously drawn from pressure estimations and, as always, it is better to base diagnostic or prognostic deductions upon the composite laboratory and clinical picture than upon any one or two features of either.

*Reaction:* Normal spinal fluid is always faintly alkaline and no information is available as to any variations in disease.

*Color:* Normally, spinal fluid is clear, limpid, and colorless, resembling water. Any tinge of color, no matter how slight, is pathologic. The color is always some tinge of yellow, from the faintest shade to a deep chrome. The nature of the pigment responsible for the coloration of spinal fluid—to which the term xanthochromia is applied—has been the subject of some discussion as not only the ordinary blood pigments, but bilirubin and urobilin have been detected in such fluids. It is certain, however, that it is derived from, and significant of, the presence of changed blood pigment. It is, therefore, significant of hemorrhage of varying degree followed by hemolysis and subsequent reduction or chemical changes in the liberated blood pigments by the action of cells derived from the meninges. Xanthochromia in its most marked forms is encountered most commonly after subarachnoid hemorrhage; in those cases of meningitis which, by the formation of organized, arachnoidal adhesions have caused a block in the subarachnoid spinal space; in spinal compression by tumors, abscesses, or spinal caries; and occasionally in long-standing cases of jaundice.

The depth of the color is, in a measure, indicative of the time elapsing since the hemorrhage, being most intense about the

sixth to the tenth day and always suggesting a preëxisting and not a fresh leakage. Comfort<sup>(6)</sup> has studied the association of yellow spinal fluid with brain tumor and finds an incidence of 35 per cent in 73 cases. He notes that the production of xanthochromia in brain tumor depends upon: (1) Involvement of the ventricular or external surface; (2) the state of encapsulation of the tumor; (3) a certain minimal degree of softness; and (4) the presence of vascularity.

Xanthochromia in the presence of brain tumor, therefore, may be interpreted as signifying that the tumor involves the ventricular or external surface, that, if not capsulated, it is soft and vascular; or, if capsulated, that it is surrounded by a plexus of engorged vessels. When there are numerous red blood cells in the xanthochromic fluid the tumor is apt to be soft, vascular and prone to hemorrhage and, hence, greatly increasing the risk or even contraindicating operative procedures which markedly reduce the intraventricular pressure.

*Turbidity:* The most common cause of turbidity is the admixture of blood due to injury of the spinal venous plexus during the puncture. When this is the case there is apt to be more blood in the fluid at first secured. This rule, however, is not invariable and it is better to centrifuge and observe the color of the supernatant fluid, when, unless there is an admixture of at least one part of blood to 200 of spinal fluid, (as indicated by a heavy cellular sediment), any tinge of color suggests subarachnoid or intraventricular hemorrhage. Coloring of the fluid will not be obtained, as a rule, for at least 2 hours after the hemorrhage.

While turbidity is generally due to a great increase in the cell content this is not always the case; at least 200 to 300 polymorphonuclear leukocytes are required to produce visible turbidity and a clear fluid may show a high lymphocytosis. Turbidity may also be due to bacteria, determined by their presence in stained smears. Turbidity is most common in meningitis due to pyogenic organisms or to the meningococcus as a result of extreme polymorphonuclear pleo-

cytosis. The degree is not necessarily indicative of the severity of the process, for clear fluids have been obtained in rapidly fatal cases, probably because sufficient time has not elapsed to permit the full development of the cellular reaction.

*Fibrinogen:* A certain proportion of fluids upon standing exhibit the formation of a coagulum or pellicle, the web varying in density with the content of fibrinogen. In order to elicit this phenomenon *agitation of the fluid during transit* must be avoided and a sufficient period of time allowed, generally several hours, for its formation. Fine, filmy webs are most frequently encountered in tuberculous and syphilitic meningitis and in poliomyelitis *but are not pathognomonic*. Dense coagula are significant of extreme albumin increase and, when coupled with xanthochromia and a high lymphocyte count, suggest Froin's syndrome. The presence of any perceptible amount of blood, and hence of serum, renders the significance of coagulum formation difficult to interpret.

*The Cell Count:* The cells usually encountered in normal fluids are the large and small lymphocytes; polymorphonuclear cells are rarely, if ever, seen. Occasional endothelial cells are also seen.

There is some dispute as to the number of cells present in a normal fluid, some writers believing that none at all should be seen, others regarding 10 per cu. mm. as the upper normal limit. The majority regard from 1 to 4 per cu. mm. as the normal range, any increase being pathologic. From 5 to 10 cells constitutes a slight increase; 10 to 50 a moderate; 50 to 250 a severe and over 250 an extreme pleocytosis.

Pleocytosis may be predominantly mononuclear (lymphocytic), polymorphonuclear, or mixed. Slight mononuclear pleocytosis is encountered in varying degree in any form of syphilis of the central nervous system as well as in other nervous diseases such as poliomyelitis and encephalitis. Severe to moderate lymphocytosis (10 to 250) is most commonly seen in tuberculous meningitis but may be encountered in encephalitis of which condition it is very suggestive. Polymorphonu-

clear pleocytosis is, as a rule, well marked when seen (50 and over), and is common in all forms of cerebrospinal meningitis of pyogenic character. The intraspinal injection of serum is commonly followed by a definite outpouring of polymorphonuclear cells. In the presence of cerebral abscess and a sterile fluid, moderate counts up to 100 may be due to a spilling over of the abscess without occurrence of a generalized inflammatory reaction. Mixed pleocytosis, especially when slight to moderate, suggests brain abscess and is also seen during recovery from meningitis. Yerger<sup>(7)</sup> states that, in the presence of a sterile fluid, the count may serve as an index of otorhinogenic intracranial complications, 25 to 250 cells suggesting extradural or brain abscess and excluding meningitis; 250 to 2500 suggesting subdural abscess, brain abscess or meningitis; and over 2500 indicating a diffuse suppurative meningitis.

De Lovergne and Abel<sup>(8)</sup> report that a slight increase in the cell count, sugar, and pressure occurs during the course of serum sickness which may explain some of the symptomatology, such as headache.

*Protein Content:* Normal spinal fluid contains from 16 to 38 mg. per cent of protein according to a study of 429 cases reported by Ayer and Foster<sup>(9)</sup>.

Young and Bennett<sup>(10)</sup> give the normal limits as from 25 to 75 mg. per cent; but Greenfield and Carmichael<sup>(11)</sup> regard 25 mg. per cent as the upper limit of normal. These figures, refer to the *total protein*, namely globulin and albumin. What is usually reported upon qualitatively is the *globulin* content.

With the usual tests, such as Noguchi's, Pandey's or Ross-Jones', only a faint or negative reaction is obtained with a normal fluid. Globulin tests of this type are usually reported as "absent" or "not increased". *Increased globulin is always pathologic but never pathognomonic.*

Because of the absence heretofore of satisfactory *simple* methods, quantitative protein or globulin estimations have not been made extensively. Such methods are now available, however, so that a quantitative study of the protein content may be expected in the



future. It has not hitherto been deemed essential.

Massively increased protein without a coincident increased cell count is not common and suggests compression of the spinal cord, spinal or brain tumor, or polyneuritis. Pleocytosis is generally associated with increased protein content though the latter is not always proportionate to the cell count. The highest values are seen in meningitis, paresis and in xanthochromic fluids.

The presence of blood interferes with both the cell count and globulin tests though Feinberg<sup>(12)</sup> has shown that if the red cells are less than 300 per cu. mm. false positive globulin reactions are not encountered.

*Sugar Content:* There has been much dispute as to the normal amount of glucose present in the spinal fluid, the accepted normal figures now being from 50 to 85 mg. per cent. Kubie and Shultz<sup>(13)</sup> have shown that, while, in a general way, spinal fluid sugar content follows that of the blood, there is no close relationship, probably because the sugar level of the blood is constantly shifting while the spinal fluid is only slowly formed and absorbed. They found the ratio between the sugar content of the blood and spinal fluid to vary from 0.53 to 0.81 with no difference noted between normal and pathologic fluid. Their series, however, did not include any cases of acute or tuberculous meningitis or of encephalitis.

Goodwin and Shelley<sup>(14)</sup>, on the other hand, believe that there is a definite relation between the blood and spinal fluid sugar content, that the latter is not constant in the same individual, and that the fluid should be secured after a night's fast and the sugar content compared to that of the blood taken at the same time.

According to Crawford and Cantarow<sup>(15)</sup>, in a study of 6 cases of diabetes the average normal spinal fluid to blood sugar ratio was 1:2. They agree, therefore, with the conclusions of Goodwin and Shelley, and believe that the widely varying results which have been obtained in different pathologic conditions may be attributed, at least in part, to a disregard of this relationship.

In the face of such contradictory opinions, it is necessary to inquire if quantitative sugar determinations are essential in the study of spinal fluid, and, if so, how they are to be interpreted. There is room for a division of opinion. With a qualitative test the experienced worker can determine (a) the presence or absence of sugar, and, (b) if present, whether in approximately normal or increased amount. In view of the fact that, regardless of the relation of the spinal fluid to the blood sugar, differential diagnostic inferences are dependent upon the relative rather than the absolute increase in glucose, quantitative determinations are not necessarily essential and almost as much information can be had from qualitative tests.

The essential cause of hyperglychorrachia is an increased permeability of the choroidal epithelium and cerebrospinal capillary endothelium. It may be expected, therefore, in conditions having an essential vascular pathology and is encountered in various functional nervous disorders, in diabetes, and when the cranial pressure is increased.

Discussion as to the diagnostic significance of increased sugar content has been most extensive as concerned with encephalitis lethargica and tuberculous meningitis. In encephalitis some observers believe that an increased sugar content is of some diagnostic import.<sup>(16)</sup> <sup>(17)</sup> Neal<sup>(18)</sup>, however, whose experience has been extensive, finds sugar determinations of no diagnostic value.

Decreased sugar content may be due to one of two factors: (1) Changes in permeability. (2) Glycolysis, due either to glycolytic ferments liberated by the cells present, or to the bacteria present when these are glucose fermenters. The latter are probably an important factor, as sterile but purulent fluids do not, as a rule, show any marked changes in the sugar content. A decrease in, or even the total disappearance of, glucose has long been recognized as one of the cardinal signs of acute meningitis, regardless of the type. A decreased sugar content is constantly seen in tuberculous meningitis. While detectable by the qualitative test, Stowe<sup>(19)</sup> believes that in this condition quantitative estimation gives

values so definitely above pyogenic meningitis and so definitely below all other conditions that the diagnosis is almost certain, the range being from 10 to 50 mg. per cent with an average of 50 mg.

The same observer, from an analysis of 556 fluids reports that purulent fluids show no change in sugar content in the absence of bacteria, and that only slight variations without significance are encountered in a great variety of conditions other than the meningitides, including encephalitis and neurosyphilis.

Egerer, Sehan and Uxon<sup>(20)</sup> also report no changes of moment in syphilis, and Hel-muth<sup>(21)</sup> failed to corroborate the statement that the sugar content of the spinal fluid was increased in pregnancy and myoma.

With the possible exception of tuberculous meningitis, it appears that qualitative give almost as much information as quantitative determinations, and that the absence of sugar is suggestive of the pyogenic meningitis and its moderate decrease of tuberculous meningitis. When it has been absent and reappears, the prognostic inference is favorable as indicating a decrease in the cellular reaction and a decrease in number or disappearance of the bacteria, the two factors concerned in its destruction.

Bacteriologic examinations, for the purposes of this paper, may be dismissed in a paragraph. The finding of the tubercle bacillus, meningococcus, pneumococcus, or other pyogenic organisms is pathognomonic. Because of its frequent presence in the skin, the finding of the staphylococcus must be checked by repeated culture or by the other available clinical data. It is to be remembered that failure to find the tubercle bacillus is not proof positive of the absence of tuberculous meningitis and that in the early stages of meningococcic meningitis, the fluid may be clear, and the organisms few in number and so missed.

*Complement Fixation Tests:* A positive Wassermann in the spinal fluid is positive proof of cerebrospinal syphilis. Yaws is the only disease in which false positive reactions may be obtained. A negative Wassermann however may occur in the presence of cerebrospinal syphilis, as has been

shown by Solomon and Klauder<sup>(22)</sup>, Fordyce and Rosen<sup>(23)</sup>, O'Leary and Nelson<sup>(24)</sup>, and others, so that syphilis in the presence of suggestive clinical signs, cannot be ruled out by a single negative reaction.

I have suggested elsewhere the possible utilization of the tuberculosis complement fixation test in the spinal fluid as an aid in the diagnosis of tuberculous meningitis<sup>(25)</sup>, making the test both upon the blood and spinal fluid and basing the conclusions upon the following premises: If a positive reaction occurs in the spinal fluid, the antigen being biologically specific, it indicates the presence of specific antibodies without, however, indicating their source. If, however, the reaction is coincidentally negative in the blood serum, then knowing that the interchange of antibodies between the blood and spinal fluid occurs only with difficulty and in slight degree, it is permissible to conclude that the positive reaction in the spinal fluid arose from the presence of a tuberculous infection in the meninges. A positive serum reaction as greatly diminishes the significance of a positive spinal fluid reaction as a negative serum reaction enhances it. A limited experience with this procedure indicates that it appears practical and useful.

*The Colloidal Gold Reaction:* In the course of studies upon the properties of colloidal solutions, Szigmondy, in 1901, discovered that an electrolytic solution, such as sodium chloride, in certain concentrations precipitated colloidal gold, and that this precipitation was prevented by the presence of protein. Lange, in 1912, repeating these experiments, and using as a source of "protective" protein the highly albuminous spinal fluid from a case of general paralysis, was surprised to note that, instead of preventing precipitation, the fluid itself precipitated the colloidal gold. From this entirely accidental finding, studies were begun which produced the colloidal gold tests. The only difficult step in the test is the preparation of a satisfactory colloidal gold solution. The actual test is simple and consists of preparing serial dilutions of spinal fluid in 0.4% salt solution, the dilutions ranging from 1:10 to 1:5120. To each of these dilutions,



the volume of which is 1 c.c., are added 5 c.c. of colloidal gold solution and the degree of precipitation read after standing at room temperature over night.

Colloidal gold solution is clear, transparent, and of a brilliant orange or salmon-red color. In accordance with the degree of precipitation, various color changes occur, to which, for purposes of record, arbitrary numbers have been assigned, as follows:

0—No change.

1—Reddish blue; slight precipitation.

2—Blue or purple; more marked precipitation.

3—Bluish; still more marked precipitation.

4—Pale blue; almost complete precipitation.

5—Colorless; complete precipitation.

*Mechanism:* Lange, and many others after him, regarded the various types of reaction as entirely due to variations in the protein content of which the test was regarded as an indirect means of quantitative measurement. Further studies have shown, however, that the explanation of this reaction is not quite so simple. There are several proteins present in spinal fluid—albumin, englobulin, and pseudoglobulin—and there is evidence suggesting that variations and mutations in differing combinations of these proteins are important factors in the production of colloidal gold reactions.

It is quite probable that the globulin is a predominant factor. It has been shown, for example, that the globulin precipitated from syphilitic spinal fluid, when redissolved in saline, can produce the same reaction as the whole spinal fluid; that the substance producing the reaction was not the same as the substance producing the Wassermann reaction; and that the albumin tended to protect the colloidal gold solution from the precipitating action of the globulin. It is assumed, therefore, that the reaction is largely electrolytic in character and governed by physical changes in the globulin in syphilis as well as other diseases, that this change is associated with an increased electric charge, and the reaction determined by the relative amounts of globulin and al-

bumin, the former having a precipitating and the latter a protecting action.

Mellanby and Anwyl-Davies<sup>(26)</sup> after extensive experimentation present the following very plausible explanation: Starting with the assumption that, under normal conditions, there is a balance between the positively-charged euglobulin and the negatively-charged pseudo-globulin of the spinal fluid, they believe that the euglobulin is an active precipitant of the colloidal solution of gold while the pseudo-globulin tends to prevent precipitation.

The euglobulin, being soluble only in electrolytes, tends to come out of solution on dilution and its precipitating action is, therefore, increased by dilution. The pseudo-globulin, on the other hand, is soluble in water and hence its ability to protect colloidal gold from precipitation is decreased by dilution. The variations in the relative amounts of these two globulins in pathologic conditions thus produces the reaction.

This, of course, is largely hypothetical and, while logical, is so far unproven, many factors being undoubtedly concerned, for example, as shown by Shaffer<sup>(27)</sup> the pH of the spinal fluid and the effect of dilution are not to be ignored. No entirely satisfactory explanation nor one capable of definite proof has yet been advanced. Only this can be stated with any certainty; that the reaction is dependent upon changes in the amount of spinal fluid globulin, and perhaps, upon changes in its character, and that, to this extent, it is an indirect method for the quantitative estimation of the amount of globulin present, with the understanding that this is but a part of the story.

*Reports:* Colloidal gold reactions may be reported very simply by setting down merely the figures representing the degree of precipitation noted. As there are 10 dilutions of spinal fluid there will be 10 figures in the report. A negative reaction, therefore, would read: 0000000000; a so-called paretic reaction would be indicated by: 5555542100. Graphic report may also be made using the dilutions as abscissae and the precipitation figures as ordinates and thus producing a curve.

### INTERPRETATION OF COLLOIDAL GOLD REACTIONS.

Reactions may be grouped into several general types:

(1) Normal reactions: not greater than a number 1 change of color in the first 2 or even 3 tubes: 1110000000.

(2) "Paretic curves": complete precipitation in the first 4 to 8 tubes with varying degrees of precipitation in the remainder: 5555542100.

(3) "Luetic curves": marked, though not complete precipitation in the first 2 or 3 tubes followed by complete precipitation in 2 or 3 tubes, and then a gradual return to normal: 4445542000. This type of curve is very inconstant and not infrequently is seen as irregular changes throughout the whole series, as: 4235443210.

(4) "Meningitic or inflammatory curves": little or no change in the first tubes (low dilutions) with a sudden precipitation in the higher dilutions, and an equally sudden return to normal: 0002445-100.

In a gross way it will be seen that in syphilis the changes are more marked in the lower dilutions to the left of the series and that the inflammatory reactions are best marked in the central portion of the series. In spite of the terminology dating from the early use of the test, the colloidal gold curves are not pathognomonic but merely indicative of pathologic changes in the fluid, the cause of which is to be determined only by careful correlation and interpretation in connection with all the other findings of whatever character or however obtained. "Paretic curves", for example, may be obtained in multiple sclerosis, poliomyelitis, paralysis agitans, cerebral tumors<sup>(28)</sup> and encephalitis lethargica<sup>(29)</sup>, as well as in paresis; "luetic curves" are not infrequently encountered in epilepsy<sup>(30)</sup>, and poliomyelitis as well as in neurosyphilis; a diagnosis, therefore, should not be hazarded upon the colloidal gold curve alone but always upon all the findings. "Meningitic curves" signify merely inflammatory reactions in the cerebrospinal axis without indicating their etiology other

than, perhaps, serving as presumptive evidence that they are very probably non-syphilitic. In the absence of evidence suggestive of syphilis, "paretic curves" are of some value in the presumptive diagnosis of poliomyelitis and encephalitis lethargica as opposed to tuberculous meningitis. They are of no value in the differentiation of the two former conditions.

Colloidal gold curves assume their most definite importance and significance in the admitted presence of neurosyphilis; though it must be remembered that neurosyphilis may be present in the presence of negative spinal fluid on a single examination, as already noted, and that the reaction does not necessarily parallel the clinical symptomatology or the progression or regression of the disease. When its limitations are understood, however, the colloidal gold curve is of marked diagnostic and prognostic value in the study of cerebrospinal syphilis. A paretic curve may be the first symptom of an impending paresis and should be regarded, even in the absence of clinical symptoms of paresis, as of grave import and warranting intensive treatment in the attempt to arrest the disease. With clinically suggestive symptomatology the occurrence of a paretic curve clinches the diagnosis and when the diagnosis is made, a resistant curve in the face of energetic treatment is an ill omen. As a rule, the more pronounced the curve the less the response to treatment; in the later stages it is very difficult to change. The diagnosis of paresis should never be made unless, in addition to the colloidal gold curve, there is increased globulin and cell count, and a positive blood and spinal fluid Wassermann. A low cell count with a positive Wassermann and colloidal gold usually indicates deep-seated changes resistant to treatment.

The colloidal gold curves in tabes dorsalis and cerebrospinal syphilis are not characteristic and are generally of the "luetic type" and furnish merely corroboratory evidence in confirmation of other findings in a doubtful diagnosis.

While diagnostic formulas cannot be constructed from the laboratory examination of spinal fluid, certain general premises may



be laid down, always remembering the numerous exceptions possible:

(1) Psychologic and mechanical factors must be ruled out before deductions are made from increased spinal fluid pressure.

(2) Pleocytosis is usually associated with protein increase, except in certain types of neurosyphilis, where the proportion is lost.

(3) Polymorphonuclear pleocytosis is strongly presumptive evidence of pyogenic pathology.

(4) Lymphocytotic pleocytosis predominates in 4 conditions: syphilis, tuberculous meningitis, encephalitis, and poliomyelitis.

(5) The absence of sugar is of more diagnostic value than its decrease—except in tuberculous meningitis—and suggests bacterial invasion of the central nervous system.

(6) Colloidal gold curves are corroboratory or suggestive rather than pathognomonic.

(7) Spinal fluids should always be subjected to a complete examination embodying the tests discussed.

(8) The findings should be considered in toto and in connection with all of the other features elicited by the general study of the case.

Much could be written and still more said as to the significance of the almost infinite number of combinations possible in the varied examinations which have been mentioned. The purpose of this paper, however, is first, to indicate the types of examinations in common use; second, to touch upon their general significance; and lastly to emphasize consistently the essential necessity for the correlation and coincident consideration of all the findings, clinical and laboratory, in a particular case without conferring undue importance upon any single method of examination.

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## A ROUTINE FOR THE TREATMENT OF SYPHILIS.

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Any group of patients may be treated more economically and efficiently through the basic use of a carefully planned routine. Some routine is always adopted, unconsciously or otherwise, in treating a number of patients; sometimes it may be merely the result of habit, or it may be carefully planned after an analysis of personal experience and the work of others. It is best to base a routine on as much of general experience as possible and to modify it as improvements may appear.

A routine<sup>(1)</sup> was developed along the lines pursued by many eminent syphilologists, with the exception that it included the use of sodium iodide in all the stages of syphilis. This use of the iodides for 2 weeks in every month, in early syphilis, was proposed in a former routine<sup>(2)</sup> because of the destructive effect of iodine on scar tissue and its apparent antagonism to *Spirochæta pallida*. The antisyphilitic effect of iodides in early syphilis is shown in the recent experimental work of Louise Pearce<sup>(3)</sup> in which she found that the regular administration of small doses of potassium iodide modified the severity and shortened the duration of experimental rabbit syphilis. In the routine treatment of patients, sodium iodide is used instead of potassium iodide because it causes less gastric disturbance, and it is hardly conceivable

that there is any important antisyphilitic effect due to the potassium ions.

In the more recent routine<sup>(1)</sup>, sulpharsphenamin was suggested as an acceptable substitute for other arsphenamin in patients with indistinct veins. Bismuth injections were substituted in all cases for half the time previously allotted to mercurial treatment. The bismuth was given in weekly injections in amounts equivalent to 0.2 gm. metallic bismuth. Bismuth has been found to be less toxic and more actively antisyphilitic than mercury, and apparently it acts in the same manner. Burke<sup>(4)</sup> believes "that mercury has become obsolete in the routine treatment of syphilis." In the routine now being suggested the principles of the previous routines remain the same: continuous treatment for a predetermined period of 1 year or more in early syphilis and for a longer period in other cases, continuous recurring cycles of arsphenamin and mercury (or bismuth), and the frequent administration of small doses of iodides. The new routine emphasizes the value of bismuth and divides the year into 4 periods of 13 weeks each so that there is no odd period of 4 weeks left over at the end of the year as in the former routine.

### NEOARSPHENAMIN, THE ARSENICAL OF CHOICE: SULPHARSPHENAMIN (INTRAMUSCULARLY OR SUBCUTANEOUSLY) IF TOLERATED.

Neoarsphenamin is probably the most commonly used of the arsphenamine because it is less trouble to use than the original arsphenamin, which must be neutralized with sodium hydroxide before its administration. In the doses generally used, the original arsphenamin is probably the most efficient of the arsphenamins if administered intravenously, but it causes the greatest number of systemic reactions. Neoarsphenamin seems to be the most commonly used drug, but it is put in the routine with the understanding that it can be replaced equally well by arsphenamin or sulpharsphenamin. The usual dosage of neoarsphenamin should be 0.6 gm., but it may be increased to 0.9 gm. in patients with good tolerance. Old arsphenamin and sulpharsphenamin may be used in a dosage of 0.4 gm.,



increasing the dosage for vigorous patients to 0.6 gm.

Some makes of neoarsphenamin are so soluble that 0.6 gm. may be dissolved like sulpharsphenamin in about 1 c.c. of distilled water, but 2 or 3 c.c. is usually more satisfactory. Neoarsphenamin may be injected intravenously with the aid of an ordinary 5 c.c. syringe and a 1 in. 22 or 23 gauge needle, but great care should be used to inject the drug slowly. It is the rapidity of injection and not the concentration of the drug outside the body which produces the immediate reactions. From 2 to 10 minutes may be given to the injection; the slower injection is made the better.

Although sulpharsphenamin may be given intravenously, it is more efficient when injected into the tissues. It should be injected deep under the skin just over the fascia of the muscles, but an injection made too deep is less painful than one injected not deep enough. The aim is to make a deep subcutaneous or epifascial injection, but frequently the injection is really intramuscular. About 1 c.c. of sterile distilled water is injected into the ampule of sulpharsphenamin through a 22 gauge 2 in. needle from a 2 c.c. syringe. When the powder is dissolved, the solution is sucked back into the syringe and is ready for injection. The loose skin is picked up at the angle of the scapula and the needle inserted deep under the skin in an attempt to have the point just touching the surface of the muscle.

#### BISMUTH SUBSALICYLATE, THE MOST SATISFACTORY BISMUTH.

Bismuth subsalicylate is a satisfactory preparation if used in the following formula:

	Gm.
Bismuth subsalicylate ....	45
Guaiacol (or creosote or phenol) .....	5
Chloretone .....	5
Camphor .....	5
Oil of theobroma .....	85
<hr/>	
145 (=128 c.c.)	

This rather thick suspension solidifies at ordinary room temperatures and may be put up in 15 c.c. collapsible metal tubes with long tips. The tip is warmed slightly to soften the suspension, or the whole tube is warmed on

top of the sterilizer for a few minutes, the cover is unscrewed, the nozzle inserted into the barrel of the syringe, and the usual dose, 1 c.c. of the compound, is squeezed into the syringe. If the collapsible tube is boiled, the bismuth will settle out, but can be redistributed by kneading the tube gently to make the suspension flow about in the tube. If the syringe is warm, there will be no difficulty in introducing this suspension of bismuth through a 2 in. 19 gauge needle. This quantity, 1 c.c. of the mixture, contains 0.2 gm. bismuth estimated as metal.

Bismuth subsalicylate is used because it is practically painless and yet seems to be fairly well absorbed. Metallic bismuth in suspension in isotonic glucose solution occasionally is painful, but was found experimentally by Hopkins<sup>(5)</sup> to have the highest therapeutic index of the preparations he tested, and would be a satisfactory variety for routine administration. Potassium bismuth tartrate suspended in oil would be more useful than bismuth subsalicylate if it did not cause so much pain; it is the most rapidly absorbed of the ordinary preparations, but many patients find it too painful even in the small dosage commonly administered. Although the tartrate is rather painful for routine use, it is an excellent drug for the first few doses because of its rapid absorption, but even the tartrate should not be given more frequently than once weekly, as the median rate of visibly complete absorption, as shown by roentgenograms, was found to be 14 days<sup>(6)</sup>. Because of this slow rate of absorption the bismuth injections are stopped 2 weeks before changing to another drug. The patient, however, is still receiving treatment from the injections of the previous weeks.

#### IF MERCURIALS ARE USED, INUNCTION IS PREFERRED.

The intravenous use of soluble mercury or bismuth salts cannot be used in this routine based on weekly visits, because acute metallic poisoning might result from the administration of 1 intravenous injection of the total dosage needed for 7 days. Even if 3 intravenous injections could be given each week, the metal, instead of being absorbed slowly and continuously, as it is from an intramuscular injection, would be thrown suddenly into

the blood stream and in high concentration reach the kidney, the organ especially susceptible to poisonous influence of these metals. Possibly mercury and bismuth act as antiseptics and make the blood and tissues less favorable to the multiplication of spirochetes without actually killing any. If this theory is correct, continuous instead of intermittent action is desirable.

Inunctions of mercury are very useful for patients who must absent themselves for a few weeks and would otherwise be without treatment. Injections of mercury salicylate are painful and less efficacious than injections of bismuth subsalicylate. If mercury is to be used, inunctions are the preferable form.

SODIUM IODIDE, ADMINISTERED ORALLY,  
IS SATISFACTORY.

Sodium iodide is given orally, in small doses, regularly for the first 14 days of each month, the patient being held responsible for this treatment. He is told to begin his first period of treatment with a small dose, 0.1 gm. daily, increasing to 1 gm. unless the iodide produces nausea, coryza, angioneurotic edema, or acne. If any disagreeable symptom appears, the patient is told to stop taking iodides for a week and then make his usual dose not more than one-half the amount which caused the symptom. As a matter of convenience, the sodium iodide can be given in one 24 hour dose. In urgent cases the patient is given the benefit of the doubt as to the value of massive doses, which because of probable gastric irritation are best given intravenously.

ADMINISTRATION OF THE ROUTINE.

The first Sunday in the year is considered as beginning the first week, and each successive week is numbered to include the 52 for the year. In the previous routine, every 4 weeks a change was made to a different drug beginning with arsphenamin, followed by bismuth, then mercury. This cycle was carried through 4 times, so that there were 4 cycles of 16 weeks each, during the year. The year's treatment was completed by disposing of the remaining 4 weeks with mercury rubs.

For this new routine, I am suggesting the relatively unimportant change from a 12 to a 13 week cycle, so that each year of treatment

is completed in the 4 cycles. The first dose of bismuth is given at the same time as the last dose of arsphenamin, because bismuth is absorbed relatively slowly. The later doses of bismuth are made smaller than the first few doses to prevent poisoning from cumulative action. A week without a bismuth injection before the arsphenamin injections allows the unabsorbed bismuth to decrease in amount. If mercury rubs are used they are finished early so that a week with no further medication allows the mercury in the skin to be absorbed completely and most of it to be excreted. Then the body will not be overloaded with bismuth or mercury when the arsphenamin is started again.

The use of this routine differs from that of the usual routine for syphilis in that all patients are treated during the same clinic period with the same drugs and the same doses, unless there are individual contraindications. Instead of beginning the treatment of new patients with any certain drug, unless they are dangerously infectious, they are put on the treatment which is being administered at the time and thus fall in with the schedule. Dangerously infectious cases are best given 3 intravenous injections in the first 8 days, and a large dose of bismuth intramuscularly the first day.

It seems to be a general custom to make minute variations, other than the duration of treatment, in the routines commonly employed, but there seems to be no important justification for these minor differences; in any adequate continuous routine the most important factor governing a cure seems to be the duration of treatment.

A routine based on these principles is the uninterrupted use of these cycles of 13 weeks each for the prescribed duration of treatment. A cycle without mercury will be used by those who believe that mercury should be replaced entirely by bismuth. Such a cycle is: first weeks, neoarsphenamin 0.45 gm.; second, neo 0.6 gm.; third, neo 0.6 gm.; fourth, neo 0.6 gm.; fifth, neo 0.6 gm. and bismuth 0.2 gm.; sixth, Bi 0.2 gm.; seventh, Bi 0.2 gm.; eighth, Bi 0.2 gm.; ninth, Bi 0.2 gm.; tenth, Bi 0.1 gm.; eleventh, Bi 0.1 gm.; twelfth, Bi 0.1 gm., and thirteenth, no



injection so that there will be more chance for the bismuth to be eliminated before the arsphenamin is given again. A cycle which includes mercury rubs would be as follows: first weeks, neoarsphenamin 0.45 gm.; second, neo 0.6 gm.; third, neo 0.6 gm.; fourth, neo 0.6 gm.; fifth, neo 0.6 gm. and bismuth 0.2 gm.; sixth, Bi 0.2 gm.; seventh, Bi 0.2 gm.; eighth, Bi 0.2 gm.; ninth, Bi 0.2 gm.; tenth, rubs; eleventh, rubs; twelfth, dubs; thirteenth, rubs. Sodium iodide, in small doses 0.1 to 1 gm. daily, is given also systematically the first 14 days of every month, regardless of any other treatment.

#### A REST PERIOD UNNECESSARY.

"No rest period is ever given during the first year of treatment, and not at any time during the first 2 years, at least when the Wassermann is positive, because of a belief that complete rest periods are an important cause of relapse. When testing for cure, if the Wassermann has been found negative at the conclusion of the supposedly sufficient period of treatment a 4 week period of rest from treatment is allowed before the blood test is repeated. If the second Wassermann is positive, the treatment is resumed with whatever drug is being administered in the schedule, which is continued for another 6 months period at least."<sup>(2)</sup>

#### THE LENGTH OF TREATMENT NECESSARY TO CURE.

In using this routine the following minimum standards are suggested. In primary syphilis, give at least a year of treatment, perhaps adding an extra month of treatment for every week the primary lesion has been present up to a total of a year and a half of treatment. In secondary syphilis (of not more than 6 months duration) give a year and a half of active treatment. In primary or early secondary syphilis with efficient treatment the Wassermann reaction should become negative before the end of the first 6 months treatment; if it does not, at least 6 months additional treatment should be given after the Wassermann has become negative. In syphilis of more than 6 months duration, a year and a half of continuous treatment should be the minimum, and at least 6 months treatment should be given after the blood and spinal

Wassermanns have become negative. The older and more resistant cases which require a 3-year or longer period of treatment to reduce the Wassermann to a negative should be given additional treatment for one-third of that period.

If the duration of treatment depends on the time it takes to make the Wassermann negative, it will also depend on the sensitivity of the test. The amount of treatment suggested is based on extremely sensitive Wassermann tests, using a fixation period of more than 12 hours at a temperature of approximately 2°C. with antigens containing 0.3% cholesterol. With the less sensitive Wassermann technic commonly used (or the still less sensitive Kahn test) as a guide, it may be necessary to give twice as much continuation treatment after the reaction has become negative. As a matter of routine it is best to use this longer period, 1 year of continuation treatment. At the medical clinic of the Johns Hopkins Hospital the standard in early syphilis is "one year's continuous treatment after the blood Wassermann (and spinal fluid) had become and had remained completely negative".<sup>(7)</sup> This standard at the John Hopkins Hospital is based on the ordinary Wassermann technic in which a fixation temperature of 37°C. for ½ hr. is used with antigens containing only 0.2% cholesterol.

#### EXCEPTIONS TO THE ROUTINE.

In primary and secondary syphilis, because of the great infectiousness of these stages, the arsphenamin injections should be begun immediately, and a large dose of bismuth should be injected intramuscularly the first day. An extra injection should, if possible, be given in between the first 2 doses, so that this rapid sterilizing agent will make the patient relatively noninfectious, and temporarily, at least, of no danger to the community. After the fourth dose, the treatment may ordinarily be continued with the same drugs the other patients happen to be receiving according to the routine.

In the later stages of syphilis, it is well to make routinely the first dose of sulpharsphenamin only 0.1 gm. and to start with deep subcutaneous or intramuscular injections. If no unfavorable reaction appears, the second, third, and fourth weekly doses may be 0.2,

0.3, and 0.4 gm. respectively. Intravenous therapy also should be begun even more cautiously in these old infections, as it causes severe reactions when used recklessly.

It is not within the scope of this paper to discuss the absolute or relative contraindications to use of the arsphenamins in patients with aortitis, hepatitis, dermatitis, tuberculosis, cancer, or debilitating conditions, or to discuss the reduction in dosage of mercury or bismuth because of nephritis, or to discuss the dosage of iodides when tuberculosis is present. There will be more time, however, for the Clinic Chief to determine which patient should receive more or less treatment, if he adopts a routine which can be carried out by others. The use of a routine, followed rather rigidly in early infections, will save valuable time and energy for the Chief to expend on the variations in the routine so necessary in many cases in the later stages of syphilis.

SUMMARY.

A routine has been developed to save the

time and energy of the directing physician so that he can devote more attention to physical examinations and necessary individual modifications of treatment. At the same time the patient is assured of systematic and thorough treatment.

The important features of this routine are that the arsphenamin courses of 5 weekly injections should be repeated 4 times a year; that approximately 0.15 gm. of bismuth should be given for every week when arsphenamin (or mercury) is not being used; that sodium iodide in small doses should be given for 14 days in every month; that treatment should be continuous instead of intermittent; that at least a year of treatment in early primary syphilis should be carried through without regard to its effect on the Wassermann reaction; that at least a year and a half of treatment always should be used in early secondary syphilis; and that, with the ordinary Wassermann test, every case of syphilis should be given at least a year of additional treatment after the test has been found negative.

ROUTINE FOR TREATMENT OF SYPHILIS.

(This Cycle Is Repeated 4 Times a Year)

A quarter year cycle with no mercury				A quarter year cycle with mercury			
Week	Neoarsphenamin (Grams)	Bismuth (Grams) of Metal)	c.c. of formula)	Neoarsphenamin (Grams)	Bismuth (Grams)	Mercury	
1	0.45			0.45			
2	0.6			0.6			
3	0.6			0.6			
4	0.6			0.6			
5	0.6	0.2*	( 1 )	0.6	0.2* (1 c.c. of formula		
6		0.2	( 1 )		0.2		
7		0.2	( 1 )		0.2		
8		0.2	( 1 )		0.2		
9		0.2	( 1 )		0.2		
10		0.	( ½ )			Mercurial Inunctions	(25 gm.)
11		0.	( ½ )			about 4 gm. daily, for	(25 gm.)
12		0.	( ½ )			6 days per week	(25 gm.)
13	WASSERMANN TEST					WASSERMANN TEST	(25. gm)
Total for 13 weeks	Neo 2.85	Bismuth 1.3	(6 ½ )	Neoarsphenamin 2.4	Bismuth 1.0	Mercury (100 gm.)	24 INUNCTIONS
1 year	11.4	5.2	( 26 )	9.6	4.0	(400 gm.)	96 INUNCTIONS

(Sodium iodide is used in daily dosage of 0.1 to 1.0 gm., the first 14 days of every month in the year.)

\* i.e., 1 c.c. of the described preparation of bismuth salicylate, or 1 c.c. of the ordinary preparations of metallic bismuth in watery suspension. This amount of metallic bismuth would be represented by about 3 c.c. of the ordinary bismuth potassium tartrates in oil but this dose would be extremely painful. Ten weekly doses of 2 c.c. of some of the best of the tartrates in oil would represent about as much metallic bismuth as is given in this course of eight doses, but would be much more painful than the injections of the salicylate.

These doses of drugs are suitable for patients weighing 70 kilos or about 150 pounds. Persons under this weight must have the doses of the drugs proportionately reduced.

These cycles of treatment are continued without any intermission for 1 year after the Wassermann test has become negative.



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## A COMPLICATION OF CHRONIC APPENDICITIS.

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(Read before the Essex County Anatomical and Pathological Society, November 18, 1926.)

Excuse must be offered for the presentation of a subject which may be regarded as trite. Lane and others have done a great deal to call attention to the various forms of pathology in the right lower quadrant. There are nevertheless certain things about stasis in the cecal pouch which need greater emphasis. While the condition is often demonstrable clinically, and though it is easily—and it may be frequently—observed in the x-ray laboratory, it is rarely the case that sufficient importance is given it either by the roentgenologist, the internist, or the surgeon. Furthermore the condition is productive of much disability, and is to a large extent susceptible of relief by proper therapy. Its early recognition and corrective management should forestall much of the disappointment following operation for chronic appendicitis which is often experienced alike by patient, surgeon and family physician.

The physician is consulted not infrequently by patients who give a history of an appendectomy, and now complain of the persistence or reestablishment of the same chronic indigestion, for the supposed relief of which their appendix was removed. According to them the operation has done no good, and what are they to do?

Inquiry as to symptoms reveals a story similar to that of patients with a chronic appendicitis as yet not operated upon. There is constipation and chronic indigestion in some of its various forms; sour eructations, belching, nausea, flatulence, fatigue, and often pain referred to the lower abdomen and sometimes directly to the right lower quadrant. Physical examination may be negative, though in many cases palpation of the abdomen reveals fulness and distention in the cecal region, with a soft, more or less tender, mass. Laboratory findings are essentially negligible; but the roentgenogram reveals a definite stasis of barium in the cecum, often for a considerable time after the remainder of the large bowel has emptied itself. The appearance of the cecum is unusual. It is smaller than normal, and its outline is smooth and cone or pear-shaped. There is a distinct absence of the usual haustral formation. It is virtually the same type of cecum so often visualized with a chronic appendicitis.

Careful study of this condition is warranted by the frequent occurrence of the above picture along with complaint by the patient of symptoms of sufficient importance to him to drive him to a physician to submit to an extensive examination. The objectives of such study should be first, the relief or amelioration of symptoms, and second, the discovery of their pathogenesis.

Treatment is, in the main, satisfactory. Here is a blind pouch which fails to empty synchronously with the nearby portion of the colon. It requires no great stretch of imagination to believe that material may lie long enough in this inactive cul-de-sac, to develop toxic products which may be absorbed and provoke ill health. It forms a sort of stagnant pool for pathologic putrefaction and fermentation. Therefore, a diet should be employed with the minimum of indigestible residue. Cellulose and fibrous matter are to be excluded, as these easily collect in such a back-water out of the current of intestinal flow. Regular evacuation of the bowel must be obtained, even if it necessitates for some time the daily employment of mild laxatives. Then to insure thorough cleansing of this pouch every so often, an ounce or two of castor oil should be administered at regular intervals of

7 to 10 days. Adbodminal massage and exercise are important adjuncts. Golf, tennis, and walking or riding when seasonable, and gymnasium work in bad weather, should be made an habitual part of the life of the patient. Such a scheme of management brings very considerable relief to many of these invalids.

Before dismissing the subject of treatment, emphasis must be laid on the advice given to patients about to be operated on for chronic appendicitis. If there is any reason to suspect that cecal stasis has already set in, the patient should be warned that removal of the appendix is only one step in the process of recovery of health. Following operation, some such routine as outlined above must be pursued for 6 to 12 months, if the patient is to gain and hold the full advantage of his operation. The appendix itself is only a part of the condition; another part of his pathology must necessarily remain behind, and this is best dealt with in the immediately ensuing months if disappointment is to be avoided.

It remains to offer what may be said of the pathogenesis of this condition. In states of health, i.e. of normal intestinal function, the contents of the small bowel are moved forward by short, frequent peristaltic rushes. There is a definite rhythm, according to Cannon, and these rushes in the jejunal portion occur at the rate of 10 to 20 per minute. Entering the colon the advance of bowel content is much slower, the peristaltic rush coming probably only a few times daily. Material thus lies longer in any given portion of the large intestine, and more time is allowed for the necessary exchanges between the bowel and the blood stream. Rhythmicity seems as essential an element in the physiologic movement of the intestinal musculature as in the heart.

Alvarez has proved that not only contractility, but *rhythmic* contractility, is inherent in the smooth muscle of the intestine, and believes that normal peristalsis is quite independent of vagus and sympathetic nervous systems. Keith assumes the presence at various points in the intestinal wall of pace makers analogous in function to the cardiac sino-auricular node. One of these he places at or near the ileocecal juncture.

Accepting these assumptions, for the sake of a basis for discussion, it may be seen that any lesion in the cecal region may interfere in some degree and manner either with the pace maker for the large bowel or with the inherent rhythmic contractility of the smooth muscle itself. Disturbance in rate or rhythm at this point might easily provoke any type of irregularity in the physiologic emptying of the bowel. Chronic changes in the wall of the appendix appear microscopically in the mucosa and submucosa, and the adhesions of the peritoneal coat are familiar to everyone who has seen such an appendix removed. It is reasonable to suppose that if the inner and outer coats are thus affected there may be some degree of damage to the muscular coat or to its blood supply. Certain it is that it is the inability of the muscular coat to contract normally which interferes with the appendix emptying itself on time. How much do these lesions extend to the wall of the cecum? Again we are familiar with the peritoneal adhesions over this region; but are they alone responsible for its inability to empty itself, or may not some damage to the muscular coat be assumed? As yet it is a matter of hypothesis only and must so remain until the pathologist has thrown more light on the microscopic structure of the cecal wall in these low grade inflammatory lesions.

#### SUMMARY.

(1) Cecal stasis is a condition which causes definite symptoms and is a factor in their production both before and after appendectomy.

(2) The diagnosis may be made on history and physical examination, and is readily confirmed by the roentgenogram.

(3) Treatment by a smooth diet, catharsis and exercise is largely satisfactory.

(4) The lesions attendant upon chronic appendicitis prevent the normal rhythmic contractions of the bowel, interfere with emptying of the cecum, and so promote toxic and reflex digestive symptoms.

(5) The hypothesis is advanced that the lesion in the wall of the appendix may spread to the cecum and very possibly involve other coats than the outside peritoneal covering.



## THE SIGNIFICANCE AND TREATMENT OF PAIN ABOUT THE HEART.

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The moment a patient presents himself complaining of pain in the region of the heart, the physician is confronted with the grave responsibility of determining the significance of the pain and its probable bearing on the future health and longevity of the patient. I have under my care many persons who have suffered from pain in the precordial region for years, and are still engaged in active pursuits, while 6 patients who have consulted me during the past year for pain about the heart died within a few hours after leaving my office. This is a common experience in medical practice.

There are 2 common errors against which the physician must be on guard when dealing with this class of cases: First, that of regarding the pain as a neurosis and allowing a seriously sick patient to go on to a state of invalidism or to sudden and unexpected death. Second, that of over estimating the seriousness of the condition and imbuing the mind of a patient whose ailment is trivial with the constant fear of impending dissolution. A wise physician has remarked "the greatest disease we have to fear is fear of disease", and in no department of medicine does this remark apply with greater force than in disease of the heart. That a man may be "scared to death" is literally true, so profound is the effect of mental states upon the cardiac mechanism.

In classifying patients with pain about the heart, for purposes of prognosis and treatment, it will be convenient to divide them into 2 groups: (1) Those in whom the pain is extracardiac in origin. (2) Those in whom the pain is of cardiac (or aortic) origin.

### PRECORDIAL PAIN OF EXTRACARDIAL ORIGIN.

The extracardiac conditions that are capable of producing precordial pain are numerous. It is to certain conditions of this

group that the term pseudo-angina pectoris is often applied, a term which in my judgment should be dropped from medical literature, as it has no real significance and leads to slipshod diagnosis on the part of the physician and to misapprehension on the part of the patient.

Among the more common pathologic states that should be classified in this group are: (1) Pleurisy, especially the diaphragmatic type. (2) Intercostal neuritis and neuralgia. (3) Myalgia. (4) Diseases of the ribs and costal cartilages. (5) Gastric disorders. (6) Pneumothorax. (7) Neurosis.

It is not within the scope of this paper to discuss the differential diagnosis of these various disorders. Most of them can be readily separated from those in which the pain is of cardiac origin by a careful history and physical examination.

A few words regarding the neurosis, however, would seem to be necessary. This includes the majority of those cases commonly called pseudo-angina pectoris, secondary angina pectoris or nervous heart pain. "While there appears to be no entirely adequate explanation of the cause of pain in these cases, the important point practically is to distinguish them from angina pectoris. The experienced physician can usually do this by giving careful consideration to the following points: True angina pectoris is a fairly definite symptom complex, characterized by pain of a definite kind and with typical location, coming on in attacks, usually induced by mental or physical activity. Pseudo-angina pectoris, on the other hand, is remarkable for the variety of forms in which it manifests itself not only in different individuals, but even in the same person at different times. It is far more common in women than men. It occurs much more frequently in persons under 40 years of age than angina pectoris. The pain of pseudo-angina is most frequently a sharp, shooting, lancinating pain located well to the left of the sternum between the third and sixth interspaces. The pain reaches its maximum intensity instantly, persists a second or two and then as suddenly disappears. These lancinating shoots may appear several times in quick

succession. This pain has little tendency to radiate, though in severe cases it may be felt in the lateral region of the chest, or even posteriorly. Physical exertion seldom induces these attacks, but mental excitement and especially fright may influence their occurrence. Certain motions of the arms or twisting movements of the body have a tendency to bring on the pain. There is little disturbance of the respiratory function, though the patient may hold his breath because of fear of bringing on the pain. Pallor and cyanosis are usually absent and while these patients are often badly frightened by the pain they do not experience the true anguish of mind so frequently noted in true angina.

#### PRECORDIAL PAIN OF CARDIAC ORIGIN.

From the standpoint of morbidity and mortality the cases in this group are by far the more important. In it may be classified: (1) Pericarditis. (2) Myocarditis. (3) Endocarditis. (4) Aortitis. (5) Aneurism. (6) Coronary thrombosis. (7) Coronary sclerosis. (8) Angina pectoris.

The acute inflammatory affections of the heart may occur without producing any pain whatever, while in other instances they may be accompanied by a variety of sensations varying from one of soreness or tightness to severe acute pain. The diagnosis is usually readily made as all of these conditions are ordinarily secondary to some acute infection, are often accompanied by fever, and by characteristic physical signs. The pain may increase and decrease in severity but is usually more or less perceptible for several days.

Chronic valvular lesions resulting from endocarditis, are undoubtedly associated in a large proportion of cases, with pain in the precordial region that is quite distinct from angina pectoris. The sensation in these cases is usually described as a discomfort, as a consciousness of the heart and at times as pain of a dull or even of a sharp character. These sensations often continue over a period of years and while annoying they do not ordinarily seriously disturb the patient, at least until the stage of cardiac decompensation sets in.

In some patients these sensations are present several times each day, while in others they may disappear entirely for weeks or months and then return for an indefinite period. Very frequently the pain is readily induced by physical exertion and when severe is often accompanied by dyspnea. It is certain that in most of the cases of this type chronic myocardial diseases co-exists and it is probable that fatigue of the heart muscle is the vital factor in producing the pain. In fact, as great an authority as Sir James Mackenzie attributes not only the type of pain that I have just described but even true angina pectoris to fatigue of a damaged myocardium. There are, however, serious objections to this latter view which I will point out later.

The pain of aneurism can usually be recognized with ease. Its persistent character, severity, tendency to extend to the back, and its associated physical signs and characteristics. A fluoroscopic examination of the chest will settle the diagnosis in doubtful cases.

Acute aortitis may produce very distressing pain under the sternum, which is frequently of a dull, boring character and quite constant during the acute stage of inflammation. It is usually diagnosed by the blowing or harsh murmur that is detected over the upper third of the sternum, transmitted upward. It is important to mention that true angina may occur in association with aneurism or acute aortitis.

#### ANGINA PECTORIS.

Since Herbecel first described this condition in the latter part of the eighteenth century it has been the despair of the physician and the terror of the patient with precordial pain. No other disease is so capable of producing such anguish of mind or of striking its victim down with such lightening like swiftness. Its cause and its manifestations have been the subject of medical research for a century and a half, despite which fact its origin and nature is still more or less obscure. I have found it helpful to divide these cases into 2 well de-



finer types: (1) angina due to coronary embolism; (2) the nonembolic type.

Angina resulting from coronary embolism constitutes about 25% of all cases. These patients are suddenly, and without obvious cause, seized with severe pain under the sternum, which lasts for hours or even days. The pain is not relieved by nitrates and is rarely entirely controlled even by large doses of morphin. It is associated with collapse and with rapid and often irregular action of the heart. Death is the ordinary termination of such an attack. At times, the patient gradually recovers, but never attains his usual health.

The cause of the more common, nonembolic type of angina pectoris is still a matter of controversy, and 3 important hypotheses have been advanced to explain its etiology: (1) Pathologic changes in the heart muscle. (2) Disease of the coronary arteries. (3) Disease of the proximal portion of the aorta.

Sir James Mackenzie is the chief exponent of the myocardial theory of angina pectoris. He regards the pain as a viscerocutaneous reflex due to fatigue of a damaged heart muscle. The chief objections to his views are that angina is not ordinarily accompanied by dyspnea or by the usual signs of cardiac failure. In fact, Wenckebach contends that when myocardial failure develops in a case of angina the pain is ameliorated or disappears. I have been able to confirm this observation in my personal experience. The relief of angina by vasodilator drugs would also tend to disprove Mackenzie's theory. Undoubted myocardial failure ultimately supervenes in a large number of anginal patients who live long enough, but it is the result not the cause of the angina.

Disease of the coronary arteries often results in the embolic type of angina previously described, and it has been the commonly accented view that it is the cause of the nonembolic type of angina as well. There is, however, considerable doubt on this point. Coronary sclerosis may exist to a very advanced degree without angina, and angina certainly occurs in patients who show no evidence of coronary sclerosis.

For many years Sir Clifford Allbutt has contended that angina is the result of disease of the proximal portion of the aorta. That the attacks of pain are induced by a rise of blood pressure in the portion of the aorta and relieved by vasodilator drugs or any other measure that lowers aortic pressure. Recently, Wenckebach and others of the Vienna school have confirmed Allbutt's views and the bulk of evidence at present seems to favor this hypothesis. Certainly, therapeutic procedures based upon this theory have proven the most helpful in practice. Of the conditions leading up to angina pectoris, syphilis and arteriosclerosis are by far the most important. Acute infections, excessive worry, hard work, and alcohol are all factors which are operative because of changes they produce in the heart and aorta.

#### SYMPTOMATOLOGY OF ANGINA PECTORIS.

The symptomatology of angina pectoris is a well defined clinical entity. *The pain occurs in paroxysms, is located under the sternum and is accompanied by a peculiar sense of constriction.* In character, the pain usually begins as a weight under the sternum and may become quite severe. It radiates to the back, to the left shoulder and down the left arm. On rare occasions it may involve both arms. It is brought on by any factor that increases the output of the heart and raises the blood pressure, such as physical effort, mental excitement, a full stomach or exposure to cold. The pain of angina is often accompanied by a mental anguish commonly described as a fear of death. There is rarely any true dyspnea, though the constricting sensation may cause the patient to feel afraid to breathe normally. In most of the grave cases the patient develops a sensation of sinking and feels as though his heart would stop beating. The rate of pulse may not be affected, but usually it is rapid and often irregular. Belching of gas and nausea often occur at the end of an attack. The duration of the attack is from a few seconds to 10 or 20 minutes. It may recur in a few hours or may disappear for several months. Death often occurs in the height of the the attack and even the first may be fatal.

There are no physical signs that are pathognomonic of angina pectoris. In a small percentage of cases no distinct signs of organic disease of the heart or aorta can be detected. The majority of cases, however, present distinct evidence of disease of the myocardium or of the aorta. Syphilitic aortitis, aortic regurgitation or aneurism may be present with their well known physical signs. In another group of cases there is a well defined arteriosclerosis with accentuation of the aortic second sound and high blood pressure. Other cases have a distinctly impaired muscle tone, on auscultation at the mitral area, with lowered blood pressure. A fluoroscopic examination may at times enable us to detect changes in the aorta that are not discovered by ordinary methods of examination.

#### TREATMENT.

The treatment of the various conditions of the heart capable of producing pain would occupy time beyond the limits of this paper. I shall, therefore, content myself with taking up the treatment of that type of pain which is of the most serious; namely, angina pectoris.

The management of an acute attack of angina requires prompt and effective therapy to safeguard the patient's life. In the ordinary (nonembolic) type of angina the inhalation of 5 to 10 minims of amyl nitrite gives almost immediate relief in the vast majority of cases. Nitroglycerin is also effective, but not so rapid or reliable in its action. If the pain is resistant to amyl nitrite, or tends to recur the administration of morphin sulphate gr.  $\frac{1}{4}$  is necessary.

In addition to the above physiologic measures, I have found the use of Aconite 2x, administered every 10 or 15 minutes to be of great value. In the ordinary case it is by far our best remedy, allaying as it does the mental excitement and fear, as well as the pain in the chest. Cactus is the next remedy of choice in my experience. Where it is called for the subjective symptoms about the heart are pronounced, especially the sensation of gripping under the sternum, but the mental symptoms are less distinctive than those of the aconite. Crataegus,

nux vomica and cimicifuga are occasionally to be considered.

Where the angina is due to coronary embolism, amyl nitrite and other vasodilator drugs give no relief and large doses of morphin,  $\frac{1}{2}$  gr. or more, are necessary. Where collapse occurs the use of brandy, 2 oz. in hot water, hot coffee, or caffein gr. 2 hypodermically are indicated.

In addition to the above medical measures, the anginal patient must be put at immediate rest and every effort made to restore mental equanimity. If he is cold, the application of heat to the body is helpful. Following the attack he must be kept at rest for several days, the time to be suited to the severity of the attack and the nature of its cause.

In the intervals between attacks, our therapy should be directed at the underlying cause. The cases that show the best response, especially if recognized early, are those due to syphilis. This includes a large group, especially of the angina occurring before 50 years of age. I believe our anti-syphilitic therapy in these cases should be most active. Half way measures may give some relief, but the condition is hard to eradicate and we must be aggressive in our treatment. It is usually wise to begin with active mercurial treatment combined with the use of potassium iodide. These drugs should be pushed to appreciable dosage—say 1 gr. or more of red iodide of mercury and 25 to 30 gr. of potassium iodide daily. Later, a course of neo-arsphenamin injections should be given, due care being observed in selecting the proper dosage.

In nonsyphilitic cases but little can be accomplished by physiologic prescribing. We usually get the best results by carefully studying the symptoms and pathologic status present and prescribing a homeopathic remedy. Arsenic and its compounds occupy a prominent place in the treatment at this time. Crataegus, Aurum udidatum, Baryta carb, Calcarea phos., and Nux vomica are all remedies that I have used at times with considerable success.

It goes without saying that the entire life of the patient must be altered in order that he may adjust himself to his new con-



dition. All activity that would tend to increase the output of the heart and raise the blood pressure must be scrupulously avoided. This applies to emotional as well as to physical activity. The diet must be curtailed to reduce blood pressure, where this is above normal, and to prevent distention of the stomach. Exposure to cold is dangerous to these patients and must be avoided. The strain incident to sexual indulgence is very dangerous to these patients. The use of alcohol must usually be interdicted and tobacco is to be used with great care.

The mental attitude of these patients is a matter to which the physician must give the most careful consideration. Many patients are injured rather than helped by consulting a physician, because they are imbued with an overwhelming fear that shortens their lives. I am convinced that in dealing with emotional patients it is a serious mistake to emphasize the seriousness of their disease. In persons of calm and well-balanced minds it may be wise to inform them of the nature of their illness, but even with these patients it is wise to point out the more hopeful phases of the case where this can be honestly done.

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## HYPERTENSION.

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(Read at the Annual Meeting of the Warren County Medical Society, October 12, 1926.)

I elected to take up the consideration of "Hypertension", the baby—I may say, the new born—of the medical family. I say the baby because it is only during this last quarter century that it was first heard of or considered. The first accurate description was given by Sir Clifford Allbutt, who defined the condition as one in which high blood pressure is the essential feature and earliest manifestation.

The arterial tension depends upon (1) the force of contraction of the left ventricle; (2) the elasticity of the arterial, the peripheral, resistance; (3) to a less extent, the volume of the blood and its viscosity.

The systolic pressure is the maximum pressure caused by contraction of the ventricle; while the pressure at the end of the ventricle diastole, or the lowest point of the pulse wave, is known as the diastolic pressure; the difference between the two is known as the pulse pressure. For measure of the variation in arterial tension or pressure the sphygmomanometer is used, as the finger pressure even with the skilled hand is very unreliable.

The systolic pressure measures the working force of the heart, and it fluctuates considerably, being influenced by exertion, excitement or worry. The pressure is usually measured in the brachial artery just below the elbow, when the patient is at rest.

In childhood, the normal systolic pressure is from 90 to 105 mm. of mercury. For adult man, the systolic pressure should not exceed 140 mm. mercury and the diastolic 85. These pressures in women are about 10 mm. lower than in men. So many factors influence arterial tension, such as posture, exercise and mental excitement, that the routine estimation made in the course of the first examination either in the office or the home has only a relative value. For reliable data the patient should be kept at rest, preferably in the recumbent position, for at least 15 minutes before the estimation is made; mental tranquility being very important but at times difficult to secure.

The auscultatory method of determination is the only one that is reliable. The diastolic pressure measures the peripheral resistance and is determined largely by the tonus of the arterioles. It is much less liable to variations in the same subject than is the systolic and often really furnishes more reliable information than does the systolic pressure. Only a short time ago a manufacturer applied for additional life insurance and he had a continued diastolic pressure of 115 mm. The systolic was not high, only 140. He was told he could not get the desired insurance unless the diastolic pressure was down at a future examination. The pulse pressure is really a measure of the work the heart must do to maintain circulation. Ordinarily this is

from 25 to 40 mm. In aortic regurgitation the systolic may be high but the diastolic, on account of the condition of the aortic valve, will be low, and this will give us a high pulse pressure.

In general, it may be said that any systolic pressure constantly above 150 and any diastolic pressure constantly above 100, or a pulse pressure constantly above 50 is accompanied by some pathology, and that no heart can stand the perpetual impact equal to 150 mm. of mercury or more 70 times per minute, 4200 per hour, 100,000 times a day, and 36,500,000 times per year, without hypertrophy of its muscle, and no vessel can stand such constant irritation without after awhile showing a reaction in the form of arteriosclerosis. Hypertension may occur at first as a functional condition independent of any demonstratable anatomic changes in the heart or blood-vessels. This is called essential hypertension, known also as benign hypertension, primary hypertension, or the hyperpiesia of Sir Clifford Allbutt.

Persistent hypertension may also occur as one of the symptoms of chronic glomerular or diffuse nephritis, and this is called by some authors malignant hypertension, in contradistinction to the so-called benign, primary or essential form.

As I have said before, I cannot conceive a truly benign hypertension extending over a long term of years. Essential hypertension continues to be an unexplained condition. Various theories as to its causation have been advanced. Some believe it is the first manifestation of nephritis. Vaquez and Potain thought it was due to hypersecretion of the adrenals or the posterior lobe of the pituitary gland. Riesman and Terey reported a series of cases in woman at the menopause and ascribed the condition to hyposecretion of the ovaries. Some new points are suggested by the work of Holman and Beck, who studied the reaction of the heart and vascular system to changes in the volume of blood. (*Jour. of Exper. Med.*, 1925) and they believe hypertension is the result of increased volume of the blood. Prolonged mental strain and continued anxiety, associated as they are with the high living of the present day, are important

factors in causation. Syphilis is not a cause. Focal infections play a part.

In the early stages essential hypertension is not attended by any symptoms and may be the accidental finding in the course of examination, possibly for life insurance. Later, many of these cases of essential hypertension break in one of 3 systems, the cardiac, the blood-vessels or the kidneys, and the symptoms for which the doctor's advice is sought will be referable to one or other or a combination of these systems. The man whose break comes in the cardiac system will complain of dyspnea on exertion, palpitation, precordial distress, and, in advanced cases of decompensation from myocardial weakness, there will be a damming back of blood into the lesser circulation as shown by congestion or edema of the lungs; when the greater circulation is affected we have edema of all parts of the body.

Another class will have true angina; and still another class will have dull headache, vertigo, tinnitus aurium, and the small vessels of the retina may break and give rise to blurring of vision, for here the vessel changes of arteriosclerosis may be first seen. Epistaxis is not an uncommon symptom and sometimes it is beneficial in that it lowers the pressure and improves the health, suggesting occasional venesection as a means of avoiding bleeding which is much more difficult of control. If the vessels of the brain are especially sclerosed, the patient may have lapses of memory, aphasia, and if the vessel breaks, a cerebral hemorrhage and its train of symptoms. Occasionally intense headache, dimness of vision, or epileptiform convulsions, may be the first symptoms that demand attention of the physician. I saw 2 such cases the present summer in the service of Dr. Kieth at the Mayo Clinic.

Physical examination in the early stages of essential hypertension shows hypertension anywhere from 150 to 250, and a diastolic possibly of 110 to 140 and there will be some cardiac hypertrophy with marked accentuation of the aortic second sound. Beyond these signs there may be nothing, but later there will be a certain amount of arteriosclerosis evidenced. The urine may or may not show albumin and there may or may not be an occasional hyaline



cast. The functional tests show no failure of efficiency of the kidney secretions, either solid or liquid.

Diagnosis between essential hypertension and malignant hypertension or chronic glomerulonephritis with hypertension, is not commonly difficult, but there will be border line cases which will give the clinician food for thought. In malignant hypertension we have polyuria and especially nocturnal polyuria. Urine of specific gravity 1.005 to 1.015; anemia more or less pronounced; severe headache, vomiting; impairment of vision from neuro-retinal edema; hemorrhages into the retina or true albuminuric retinitis. Often times, in addition to these we have inability of the kidneys to secrete salts and urea or to "concentrate" as shown by the various functional tests; and casts and albumin are much more persistent and numerous in the renal cases.

In those cases in which the break comes in the cardiac system the long history of polyuria and so forth is not obtained.

Among the most constant and most worrisome of symptoms of hypertension is albuminuria. In a given case the question always arises as to whether it signifies a true nephritis. In a large measure the prognosis to be given depends upon the answer to this question.

Alarming as hypertension may be there are many instances in which even systolic 240 to 260 mm. is compatible with many years of life and health. Ehrstrom (in an abstract from the Journal A. M. A.) reports in 1925 the examination of 300 patients with hypertension, first examined in 1918, and he thinks about one-half of them have breaks that shorten their life materially. British writers are openly critical of the emphasis we place upon hypertension in this country.

We are now at the peak of a wave of investigation of hypertension and no doubt there is some magnification of its importance. If the movement of annual examination of the supposedly healthy individual gains many advocates we will soon have an immense amount of data on this subject.

*Treatment:* The cause of hypertension not being definitely known, treatment consists in prophylaxis, in the avoidance of certain arti-

cles of food or drink such as alcohol, spiced foods, meat, etc., and of physical, emotional and mental strain. The removal of focal infections, such as diseased teeth, tonsils, and sinuses, is to be urged. I have known the removal of infected tonsils to cause almost immediate relief from hypertension. The menopausal cases of Riesman, Torrey and others have done very well on ovarian extract in combination with rest and bromides. We have not as yet learned subtraction where hypersecretion of the endocrine gland is concerned.

Medicinal treatment of high blood pressure is annually the basis of a great amount of medical literature but unfortunately the very successful treatment of one year faded into the background of another year's experience. We have heard salt-free diet praised to Heaven as a sure cure in every case only to find that it is only the occasional case that is greatly benefited by this measure alone, but don't forget that this is one of the most important parts of treatment in our armamentarium.

Rountree tried out the radium salts and found them very expensive and the action fleeting. About 1925, the use of herpramone, liver extract, was exploited to the limit. Barksdale, this year, reports the use of a substance from watermelon seeds (cucurbitacin) with a marked lowering of both systolic and diastolic pressures. It was of no use where definite arteriosclerosis was present and he suggests that it works better in cases of cardiac break. Potassium iodide has been much used but it is of little or no benefit. Stevens says that the vasodilators, such as nitroglycerine, sodium nitrate, erythral tetra nitrate, should be reserved for emergencies when the heart or the cerebral or the coronary vessels give the signal. In vigorous plethoric patients a venesection of 12 to 16 ounces often gives good results. Kieth, at the Mayo Clinic, treats his malignant hypertension with rigid salt-free diet, proteins reduced about 40 gm. a day, luminol to reduce the pressure, in doses from 1 to 1½ gr. t.i.d., and amonium chloride for diuretic effect. In those cases with generalized edema, to reduce edema, especially, he used novasurol, giving first a test dose of 1 to 1½ c.c. intramuscularly and if no untoward symptoms develop he would give on the sec-

ond day later  $1\frac{1}{2}$  to 2 c.c. intravenously and repeated in 4 or 5 days. In those cases where there is definite myocardial insufficiency, digitalis given 1 day out of each 5 in liberal doses is recommended by many clinicians.

### **BLOOD PRESSURE AS A THERAPEUTIC GUIDE IN CARDIOVASCULAR-RENAL DISEASE; WITH REPORT OF CASES.**

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(Read before the New York Academy of Medicine, October 18, 1926.)

There is perhaps no phase of internal medicine which has been more widely and generally discussed both by the laity and the profession during recent years than that of blood pressure, concerning its great importance and significance on the one hand, and its valuelessness and lack of meaning on the other. In fact, one might popularly term it the topic of fashion.

Therefore, the time is near at hand, if not already present, when blood pressure significance must either step aside as being a bogey about which the human race would have been better off had the sphygmomanometer never have been invented, or it must soon take its place along side of the proven and accepted findings in clinical diagnosis.

In attempting to arrive at some decision; then, concerning the merits of a subject in the face of so much chaos emanating from two widely divergent sources (one of which thinks their reasoning to be well founded when they say that there is no clinical significance to blood pressure because it varies so much in a given case not only taken from time to time, but often when taken by several observers in the same case at the same time, and a second group who with the same degree of certainty think that blood pressure is of great diagnostic and prognostic value and try to keep long, careful records of their cases in order to enable them to prognosticate the probable span of life), what is one to do, particularly the patient, who has been told by a physician in whom he has great confidence

that his symptoms are due to his hypertension, whereupon he seeks a second opinion and is told with the same surety that his high blood-pressure has no meaning at all?

The medical profession must soon decide whether there is a physiologic significance in blood pressure in cardiovascular-renal disease, if carefully taken, or that there are so many uncertain and variable factors which enter into a given case that it makes its clinical significance of questionable value; moreover, there should be an explanation found for such discrepancies and variances of opinion as occur in a subject not wholly new; one which has received so much medical study and which is reviewed by men of equal clinical training and concerning a subject which apparently does not require expert skill to determine its many pressure changes.

As pointed out by the writer in previous papers, if one can judge the medical profession as a whole by what one sees in Atlantic City where patients are sent by doctors from all sections of the United States and Canada for relief from cardiovascular-renal disease, one has an opportunity of acting as clinical clerk, so to speak, or as outpost observer for the doctors at home and can in a way sense their line of thought by gathering each patient's story as an explanation of his or her own symptoms, in the first place; by studying the outline furnished to the patient by many home doctors expressing their views, concerning the things they believe to be at fault, in the second place; and finally by noting the doctors' points of view as outlined concerning treatment. One can feel the therapeutic pulse of the medical nation, as it were, and, from this data, it seems to me, form a rather fair idea of the medical reasoning and line of attack concerning this particular problem over a very extensive area.

Therefore, using my 12 years of experience on this particular problem in this way as a basis upon which to work, comprising as it does a careful study involving a large group of very variable cardiovascular-renal cases; not withstanding the feeling that one is bringing coal to New Castle, one feels justified in attempting to invite your kind attention to some very interesting blood pressure observations



which I hope will at least assist us in our attempt to explain this intricate and preplexing problem.

This study may be divided into 3 main epoches or time periods: First of all, not until rather recent years was there more than the systolic pressure taken in any case, which made clinicians, as far as hypertension was concerned, place all cases of cardiovascular-renal disease in one large group as being essentially the same. Therefore, they could not possibly have known that individuals showing similar systolic pressure, but with quite variable and unlike diastolic and pulse pressures need not necessarily present similar clinical symptoms. This is not at all remarkable, if one reviews this particular period, because it represents the teachings and facilities for taking blood pressure common at that time. The auscultation method of taking blood pressure was not in general use and, as you know, the diastolic pressure could not be determined by the tactile method alone. Moreover, the teaching explanation for the causes of hypertension was along quite different lines from those of more recent years.

One group, representing perhaps mostly the pathologists and physiologists, thought it to be due to peripheral resistance as expressed in structural changes in the circulatory apparatus itself. Therefore, they made rather extensive histologic studies of the arterial and kidney structures with the hope that their findings might clear the matter up.

A second group ascribed the fault of increased blood pressure to increased viscosity of the blood due to accumulated poisons in the blood stream which was not being excreted by damaged kidneys or which acted in some reflex way upon the adrenals causing hypersecretion of adrenalin and consequent vasoconstriction with resultant hypertension.

A third group thought it to be due to increased salt retention in the blood plasma as a part of a damaged kidney and lack of elimination, which in turn caused a rise in blood pressure.

In answer to the group who laid great stress upon structural changes of the circulatory apparatus as being the cause, came cases which were checked up at postmortem in

which similar systolic blood pressure readings were observed during life and found to show very different and dissimilar arterial and kidney structural changes; moreover, they were unable to explain by structural changes those cases of marked atheroma in which there had been no hypertension found during life.

In answer to the group who laid so much emphasis upon increased viscosity of the blood due to supposed accumulation of poisons in the blood stream which could not be excreted by damaged kidneys, came those unexplained cases of complete anuria, like bichloride poisoning, in which there had been no excretion of urine at all, yet which showed no constant rise or increase in blood pressure.

To answer those who laid the fault of hypertension at the feet of salt retention in the blood plasma which could not be excreted, thus causing hypertension, there was no universal fall in blood pressure found when patients were placed on a salt-free diet.

These contradictory findings naturally gave blood pressure a rather poor clinical status and undoubtedly men who left school about that period reflect those teachings in their daily routine of treatment and have not as yet overcome it.

The second epoch began with the advent of the auscultatory method of taking blood pressure which enabled clinicians to take the high, the low, and the pulse pressure, which showed them for the first time that there could be similar systolic pressures in a group of individuals without their necessarily showing like diastolic and pulse pressures at the same time. Therefore, it seemed to them that if one could understand the relationship between systolic and diastolic pressures in a given case, the problem should be about solved. Very careful records were kept of blood pressure observations and an attempt made to correlate them with the clinical findings. Here again many contradictions occurred, because it was found that in a group of cases which showed both systolic and diastolic pressures to be alike, the clinical symptoms were not necessarily always the same; moreover, they did not show the same relationship between the systolic and diastolic under varying circumstances. In other words,

there was still some unexplained determining cause. This, as you know, also helped to discredit blood pressure values, and perhaps explains in a way why a large group of our profession still reason that way.

The third and final epoch or period began with our studies during the late World War when an immense number of young and middle aged men were subjected to all kinds of physical laboratory and blood pressure tests to try to determine their cardiovascular-renal fitness for strenuous service.

These observations brought us many steps nearer the real goal. However, inasmuch as the chief mass of material dealt with in these studies were men of a younger age than those one usually meets with in hypertensive disease, it was not a true test of the cardiovascular-renal apparatus as far as hypertension is concerned, except possibly for those cases showing very definite cardiac or renal impairment following some acute infectious disease. Therefore these observations, while quite accurate and painstaking, did not show that hypertension could be placed in very definite groupings and again helped to place doubt in the minds of many observers concerning blood pressure values. Now, inasmuch as a careful study of the structural changes of the cardiovascular-renal system and the blood for poisons of end-product retention which could not be excreted, had failed to explain the cause of hypertension, as pointed out previously, and since they were likewise able to keep very careful records of both the systolic and diastolic observations under all types of varying circumstances and follow the urinary excretory power of the kidney as an expression of elimination in such an enormous amount of clinical material as was available under such unusual control circumstances as was possible in the World War, apparently without explaining the true status of this disease, there seemed to have been gathered, by many observers concerned, the feeling that the influence of the nervous system upon a group of individuals who showed similar blood pressure readings was the deciding factor and was what made what seemed to be the same type of case at the outset vary under different circumstances. Here again an un-

fortunate setback occurred which made many feel that blood pressure observations were about the most undependable single test or check-up in clinical diagnosis.

Fortunately for us, however, this feeling has not lasted. We are passing through an era in medicine when clinicians more than ever are thinking in terms of composite pictures; that is, looking upon the cardiovascular-renal system as a whole. A chain is no stronger than its weakest link; moreover, what at first may seem to be at fault, may in reality be simply laboring under some physiologic hazard which has gotten it into difficulties and cannot get out. In a machine so intricately inter-related as the human makeup is, and in which every system is so dependant on what every other system is doing one cannot single out the cardiovascular-renal system alone and ignore all of the rest. The picture must be viewed as a whole and only as the negatives drop out can one narrow the field down to what most likely is at fault.

In my own studies, which are based upon both my private work and that as one of the chiefs of a medical service, I have tried to make use of all the available tests and check-ups at my command and have kept careful blood pressure records only as one of the legs of a medical triad, so to speak, which in summing up would play its part in assisting us to arrive at a final conclusion.

As pointed out by the writer previously, why hold blood pressure to so great an account for accuracy in so intricate a mechanism as the human body when we do not do the same with any other means of diagnosis?

How difficult would it be for us as physicians if deprived of the history of onset in gastro-intestinal disease; what headway could we make in diagnosing typhoid fever without the temperature and pulse chart, and with what feeling of certainty could we direct our treatment of acute abdominal conditions without the leukocyte count? Yet, not one of us would wish to rely upon any one of the just mentioned findings alone. However, when they are added to some other symptom or finding in a given case they help to present a certain clinical picture which we term diagnosis. Just so it is with blood pressure, when given its



proper value while attempting to arrive at a conclusion.

We owe a great deal to experimental physiologists for observations made upon heart muscle action and for calling our attention to two of the most fundamental characteristics of that tissue which places it in a class by itself and which, to me, forms the basis upon which all blood pressure reasoning must be built. I refer to the great need for the heart muscle to have a good blood supply and rest, and its wonderful recuperative power to overcome an injury when given sufficient time to relax between beats. The same identical blood pressure picture found in two individuals will vary greatly in direct proportion to the cardiac reserve found in the two. Moreover, the heart is the actual motor power back of all blood pressure readings, high or low, and is the chief source through which our information must come concerning hypertension in any of its forms. It does not matter whether it is a weakened heart muscle, peripheral resistance due to arterial changes, sclerosed kidneys or vasomotor let down that is at fault, the ability of the heart muscle to maintain a given force as expressed in terms of blood pressure, high and low, is our chief guide as to whether the condition is one of hypertension or hypotension.

Using, therefore, the systolic and diastolic pressure readings as the motor expression of the circulatory apparatus in physiologic action, the foundation is set upon which one might attempt to build his house of reasoning.

There seems to be a bit of truth in all the theories propounded in the past concerning blood pressure, but which failed because those offering them attempted to draw too sharp a line in their division of causes. Forgetting perhaps, as previously said, that an organ is often as much affected by simply being a part of an upset mechanism which is not functioning properly as by being itself the particular thing at fault.

Therefore, taking hypertension cases as they come as one large class they can be subdivided into 3 large general groups:

First, those due to secondary causes which are not necessarily a part of the cardiovascular-renal system itself. This is by far the largest group that one sees in the general run

of cases. Secondly, those due to some fault in the cardiovascular-renal apparatus itself. These usually occur early in life. Thirdly, a combination of the secondary and primary causes, with resultant damage to the apparatus itself, as is found about the fifth to sixth decade, with myocarditis and chronic nephritis plus some focus or foci of infection.

Under secondary causes, there usually are 4 main subdivisions: (1) Foci of infection, —teeth, tonsils, sinuses, gall-bladder, appendix, intestinal tract, prostate, pus tubes, etc. (2) Toxemia, from constipation or delayed bowel movements; delayed kidney function (which by the way has received little attention in the past), or bad food combinations. (3) Faulty habits, such as overweight, overeating, excessive water intake, lack of nervous relaxation, lack of exercise. (4) Menopausal disturbance and sexual imbalance.

Under primary causes, or those in which the circulatory apparatus itself is at fault, come those due to endocarditis, following acute infections, like rheumatic fever, scarlet fever, and diphtheria or nephritis due to same causes or a combination of the two.

In the combination of causes, or third group, come those cases which show some definite changes in the heart muscle or the circulatory system, or the kidneys, with a superimposed focus or foci of infection by which the condition is rendered progressively worse.

#### METHOD OF PROCEDURE.

Obviously, every possible source of injury to the circulatory apparatus should be removed and every effort directed toward placing the body as nearly as possible on a normal functioning basis. Remove the source of infection, whatever it be; correct the toxemia by cleaning up the intestinal tract and arrange the habits to make the weight, the food intake, and the elimination comply with the best possible standards of hygiene.

If careful systolic and diastolic blood pressure observations are kept during the process of medical hygienic correction, the cases usually fall into one of the following 5 groups which were published in the A. M. A. Journal September 18, 1926:

(1) Hypertension, with a diastolic less than

100, usually found in women about the menopause and which comes down below 110 as soon as the menopausal symptoms subside.

(2) Hypertension, with a well sustained systolic and a diastolic above 110, both of which come down and the diastolic falls below 100 when rest, diet and elimination are carried out.

(3) Hypertension, with a well sustained systolic and a diastolic above 110 whose systolic falls to within the normal when secondary causes, as before mentioned, diet and elimination are carried out, but the diastolic remains at or above 110.

(4) Hypertension, with both systolic and diastolic not well sustained, but which vacillates up and down 10-20 points on the blood pressure machine while being taken. Both diastolic and systolic respond to rest, diet and eliminative treatment and the diastolic drops below 100, but relapses very easily under physical exertion showing poor myocardial tone.

(5) Hypertension, with well sustained systolic with diastolic below 100, whose systolic varies almost at every taking and responds very poorly to any type of treatment, usually found in highly neurotic individuals or those whose ancestors have shown hypertensive tendencies.

Now, are these classifications clear cut, or do they vary over a wide range of differences? What dependence can one put in his findings in a given case? This question has been asked many times and will be asked many times again, because blood pressure is so dependent upon not only what damage there has been done to the cardiovascular-renal system in the past and is being done at the time of your observation, but also upon the perfection of the body machine as a whole of which the heart and its accessories are but a part. Therefore, there must be variation within the normal, but those should not give us grave concern. There is nothing exact, but mathematics, and even a straight line cannot be run twice in exactly the same way.

Most cases fall into one of the above groupings. In some cases the more they vary the more information they impart to a careful observer. Any considerable variation is usually found to be due to one of two things: unstable nervous system which throws unlike

stimuli in some way into the circulatory machine control making it act differently at different times, or to a poorly toned-up heart muscle whose dynamic force is so much disturbed that it cannot act the same way all the time. The nervous type usually varies from time to time, whereas, the poorly toned-up heart vacillates or varies at each individual reading.

The following group of cases are reported again as in the Journal A. M. A., September 18, 1926, but arranged somewhat differently:

#### REPORT OF CASES.

##### Group 1.

No. of cases 18—Age range 40-51 years.

##### Chief Complaint:

1. None, just told of high blood pressure.
2. Nervously upset, insomnia, fear of high blood pressure.
3. Hot and cold sensations, pains and needles all over body, pains in back of head, limbs and neck.
4. Overweight.

##### Physical Examination:

Head, normal.  
Chest, normal to rapid heart action.  
Abdomen, normal to vague gastro-intestinal disturbances.  
Reflexes, normal to overactive.  
Blood pressure, systolic 160-190 well sustained, diastolic 70-95 well sustained.

##### Laboratory Tests:

Blood, within normal.  
Urine, within normal.  
Blood urea, within normal.  
Creatinin, within normal.  
Phenolsulphonethalein, within normal.  
Wassermann, negative.

##### Results:

Corrective measures and ovarian substance in indicated cases. Blood pressure, systolic 120-155 well sustained, diastolic 70-90 well sustained. General condition much improved.

##### Group 2.

No. of cases 27—Age range from 46-77.

##### Chief Complaint:

1. High blood pressure.
2. No symptoms but told of high blood pressure.
3. Headaches, dizziness and not feeling well.
4. Pain and gas pressure about heart.

##### Physical Examination:

Head, from normal to nose and throat congestion.  
Chest, normal.  
Heart, normal, no murmurs, no apparent enlargement.  
Abdomen, from normal to full and gaseous, evidences of poor elimination.  
Reflexes, normal to overactive.  
Blood pressure, systolic 165-195 well sustained, diastolic from 90-110 well sustained.

##### Laboratory Tests:

Blood, normal to slight secondary anemia.  
Urine, normal to faint trace of albumin.



Blood urea, within normal.  
Creatinin, within normal.  
Phenolsulphonephthalein, within normal.  
Wassermann, negative.

**Results:**

Corrective measures, diet and elimination.  
Blood pressure, systolic 140-165 well sustained,  
diastolic 80-100 well sustained.  
General condition improved.

**Group 3.**

No. of cases 44—Age range, 42-71.

**Chief Complaint:**

1. High blood pressure.
2. Hypertension found during routine examination.
3. Headaches, dizziness, no endurance, pain in legs, bad taste in mouth, loss of appetite.
4. Bounding pulse in chest and head, upon exertion.
5. Overweight.

**Physical Examination:**

Head, from normal to infected teeth, infected tonsils, sinuses and otitis media.  
Chest, from normal to forms of bronchitis and enlarged bronchial glands.  
Heart, from normal to increased cardiac dullness, cardiac murmurs, accentuated aortic second sound.  
Abdomen, from normal to full and firm, pain in region of gall-bladder and appendix.  
Reflexes, from normal to overactive.  
Blood pressure, systolic 170-220 well sustained, diastolic 110-120 well sustained.

**Laboratory Tests:**

Blood, from normal to secondary anemia.  
Urine, from normal to low gravity and hyaline casts.  
Blood urea, from upper normal to increased retention.  
Creatinin, from normal to upper normal.  
Phenolsulphonephthalein, from normal to low elimination.  
Wassermann, negative.

**Results:**

Removal of all secondary causes, diet rest and elimination.  
Blood pressure, systolic 140-168 well sustained, diastolic from 100-110 well sustained.  
General condition from much improved to slight improvement.

**Group 4.**

No. of cases 63—Age range, 38-76.

**Chief Complaint:**

1. Shortness of breath on exertion, cough and unable to lie flat in bed.
2. Indigestion, belching of gas.
3. Some swelling of ankles at night, does not feel well and tires easily.
4. High blood pressure.

**Physical Examination:**

Head, from normal to flushed look to face and mucous membranes and poor mouth hygiene.  
Chest, heart from normal to increased dullness and distant heart sounds.  
Lungs, from normal to few fine crackles at bases.  
Abdomen, from normal to slight increase in hepatic dullness and gas distention.

Reflexes, from normal to sluggish.

Blood pressure, systolic from 140-160 to 200-220 not well sustained, diastolic from 90-100 to 100-110 not well sustained.

**Laboratory Tests:**

Blood, from normal to increase in red cells and hemoglobin.  
Urine, from normal to very concentrated, highly acid and trace of albumin and hyaline casts.  
Blood urea, within normal;  
Creatinin, within normal.  
Phenolsulphonephthalein, within normal.  
Wassermann, negative.

**Results:**

Rest in bed, diet and elimination. Blood pressure, systolic 150-190 better sustained; diastolic 95-105 better sustained. Resumed former duties with gradual return of former symptoms and former type of blood pressure. Put on digitalis with rather striking improvement.  
Blood pressure, systolic 140-174 well sustained, diastolic 72-90 well sustained.  
Great general improvement.

**Group 5.**

No. of cases 14—Age range, 34-62 years.

**Chief Complaint:**

1. High blood pressure.
2. Pounding nervous heart.
3. Nervously upset and unable to sleep.

**Physical Examination:**

Head, from normal to slight suggestive thyroid enlargement.  
Chest, heart, from normal to rapid and pounding.  
Lungs, normal.  
Abdomen, from normal to areas of vague abdominal pain and tenderness.  
Reflexes, from active to overactive.  
Blood pressure, systolic 170-200 well sustained, diastolic 82-100 well sustained.

**Laboratory Tests:**

Blood, within normal.  
Urine, within normal.  
Blood urea, within normal.  
Creatinin, within normal.  
Phenolsulphonephthalein, within normal.  
Wassermann, negative.

**Results:**

Rest, diet and eliminative treatment, with slight improvement which varied up and down without apparent cause. Blood pressure, different almost at every reading and soon back at original point.

**SUMMARY.**

Group 1 represents that type met with in women about the menopause which soon rights itself as menopausal symptoms are alleviated.

Group 2 has some toxic base for its origin and which apparently has not as yet done real damage to the circulatory apparatus and which clears up under improved diet, habit and elimination.

Group 3 is suffering with or has suffered

from some definite insult to the cardiovascular-renal system which if found and removed permits great improvement; but the condition does not return to normal, as is shown by type of blood pressure, because of permanent damage.

Group 4 represents that type of case whose myocardium has gotten into a circulatory hazard, and has begun to falter and do inconsistent work; furthermore, it is crying for help and if given rest and cardiac support will return practically to normal again, but should be watched from time to time.

Group 5 is met with in highly neurotic individuals who either have some inherent instability of their cardiovascular mechanism or some endocrine imbalance as yet undiscovered. They respond to almost any treatment at first, but soon relapse.

#### CONCLUSIONS.

(1) Blood pressure is not an entity within itself because its findings are not only dependent upon what damage has been done to the cardiovascular apparatus as such at the time of your observations, but likewise upon what variations from normal there might be in some other systems which in turn throw some extra hazard upon the circulatory system.

(2) There is some truth in all the theories propounded concerning blood pressure, but which have failed to satisfy because those offering them attempted to draw too sharp a line between the cardiovascular-renal system and other systems in the body.

(3) Blood pressure will take care of itself in a large proportion of cases, if foci of infection, and sources of toxemia are removed, and correct habits of eating, and elimination, are carefully carried out.

(4) Blood pressure readings, though they vary, speak a rather clear language to a careful observer and can be of great help in suggesting proper lines of treatment.

(5) Hypertension, whatever the cause may be, sooner or later makes its greatest imprint upon the heart muscle itself and it is in relieving this inevitable strain that we can expect our greatest therapeutic result. Hence, the importance of blood pressure readings as a therapeutic guide.

## FURTHER OBSERVATIONS OF INJURIES TO LOWER SPINE AND PELVIS.

JOHN N. BASSIN, M.D.,

Associate in Orthopedic Surgery, Long Island College Hospital Medical School; Rehabilitation Surgeon, Newark Beth Israel Hospital; Former Chief Surgeon New Jersey Rehabilitation Commission; Medical Advisor New York State Insurance Fund and New Jersey State Department of Labor.

The object of this paper is to abridge the medicolegal aspect, and relate additional clinical features of a selected group of cases for the practitioner's consideration. With that purpose in view, a number of private patients, of both the compensable and noncompensable variety, were counterchecked with an equal number from the Long Island Hospital and Clinic, and the unusual symptoms of persistent character noted. Fifty of the more outstanding cases will be considered.

In the July, 1924, issue of the Journal of the Medical Society of New Jersey, 456 traumatic spines were reported by the writer. In the same journal of 1921 series, a number of fractured spines were also cited under the caption of "End-Results of 442 Fractures Due to Industrial Accidents." The etiology, symptoms, regional anatomy, physiology, pathology, diagnosis and treatment, together with the rôle played by focal, specific and general infections were then reviewed. Diagnostic differentiation only will be mentioned in this continuation study.

The manner of traumatism affecting the spinopelvic girdle in the adult and diagnosis thereof are still points for differences of opinion among such men as Baer of Johns Hopkins, Hibbs of Columbia, and other equally distinguished investigators with whom the writer has had occasion to discuss the subject. It is held by some authorities that sprain or luxation of the sacro-iliac synchondrosis by external force short of crushing is not even probable. This view, however, is contrary to the usual findings observed by the writer in sufferers from this affection. Obviously, problems of direct and differential diagnosis pertaining to this region are still unsolved. With



that fact in mind, Dr. Jacques C. Rushmore, of the Orthopedic Department of the Long Island College Hospital Medical School, has been encouraging further reasearch.

In connection with clinical and laboratory investigation of the subject, an occasional light is incidentally thrown not alone upon the direct, but also upon the indirect, causes underlying the pathology of the traumatism incident to spine and pelvis. For instance, the after-effects of deep irradiation for neoplasms of the uterus and adnexa occasionally present symptoms akin to those following external traumatic causes involving the iliolumbar as well as the uterosacral and ovariopelvic ligaments. A clearer conception is obtained in spinal injuries occasionally affecting the cauda equina, with bladder symptoms and musculospasm that often follows these injuries. Symptoms that heretofore were vague have also become more significant in establishing a correct diagnosis. Localization of tears at the musculo-aponeurotic junctions and tendoperiosteal involvement, that often pass unsuspected under the diamond shaped area corresponding to the lumbar fascia, can now be more clearly demonstrated in what is sometimes assumed to be an ordinary sprained back. Unless there be a definite involvement of a bone and joint lesion of some duration, roentgenologic findings will be negative, although several roentgenograms closely following each other may show beginning of trouble. In the final analysis physical findings still remain our most useful guides in this field of work.

While there is ample literature on the subject, it may be helpful in this connection to mention the seldom described and not rarely traumatized lumbosacral articulation, the iliolumbar ligaments and the spino-articular synovial membranes. Preëxisting static spinal deformities and those of congenital origin are usually alluded to, with the exception of one with an anomalous depth in the first piece of the midbody of the sacrum for the reception of the fifth lumbar vertebra with which it is often practically fused. (Huntington's Anthropology.) Such pseudosacralization, when sprained, invariably results in a troublesome chronic disability. The spinopelvic arthritides,

the organized deposits in the intermuscular layers immediately adjoining the strained or sprained area, and especially the fibrosis following extruded blood and the subsequent contractures must always be looked upon as the worst offenders that a clinician has to contend with.

There is comparatively no difficulty in diagnosing spinal fractures, although there are so-called sprain fractures with the usual involvement of extensive degree of overlying soft parts, which cause more persistent and painful symptoms, and which ought not be dismissed lightly if chronic disability is to be prevented.

Although a sprained back gives a negative roentgenogram, the persistent and painful symptoms of spinopelvic origin with the patient pointing invariably to the same region while being examined for limitation of spinal motion, means traumatized tendoperiosteal attachments; in some instances the tendomuscular sheaths are also torn and muscle spasm is even more apparent than that following fractures in this region. Precise differential diagnosis calls for reëxamination of the patient on several occasions, with the aid of a laboratory check-up.

In a routine examination, the practitioner's tendencies seem to be confined to terms of history, pathology, symptomatology and differential diagnosis. One is often led astray for lack of review of the actual mechanical principles originally involved in injuries of the lower spine, as has been well brought out by Osgood of Boston, and Johnson of Philadelphia. It would not be amiss to state that nerve injury is so closely associated in the syndrome-complex following trauma to lower spine and pelvis, that one must be always on his guard not to overlook the occasional involvement of the cauda equina or one or more branches of the sacral plexus. When women happen to be the sufferers, it is not unusual to trace most of the symptoms to the uterosacral ligaments, especially when the sacro-iliac joints are traumatized. In 2 instances it was observed that similar symptoms often followed deep irradiation for utero-adnexal neoplasms.

One often wonders why a strained back presents particularly lasting symptoms refer-

able to the spinotransverse angular spaces and the muscle tissue lying therein. Dissection of fresh cadavers and the tissue sections from this area point to lymphatics closely accompanying the vessels in the planes of the muscle tissue lying beneath the diamond shaped lumbar fascia; the lymph supply as compared with the other muscle planes is apparently meager as one approaches the lower and outer aspect of the pelvis. Traumatized directly or indirectly, this region is especially predisposed to venous stasis, which is also evident in perineuritis of the great sciatic in some cases following involvement of the sacro-iliac joints.

Some patients present a psoas muscle spasm on spinal flexion; in such instances there is evidence of concomitant atrophy of the erector spinal muscle group; bladder symptoms are also occasionally complained of. Incidentally, within 8-10 weeks after injury with such preëxisting posterior muscle group atrophy, a lateral x-ray view invariably discloses calcific deposits on the anterior aspect of the vertebral bodies close to the intervertebral joints.

#### GENERAL CONSIDERATION.

In the series of cases examined there were 41 male patients and 9 female patients. Objectively active restricted spinal motion in one or all directions was observed in 34. Passive restricted motion was observed in 25, with pain distinctly localized in 4 instances. Positive x-ray findings were obtained in 8 cases, preëxisting anomalies existed in 3; preëxisting lues in 1; low blood-sugar content in 2; coexisting arthritis in 2; coexisting cholecystitis in 1; orthopedic Körnig in 28; psoas spasm (not Pott's disease) 2; central cord involvement with radiculitis in 1; postirradiation (women), 2; grëater sciatic involvement, 6. The balance presented mixed symptoms of the usual type, with the exception of 7 patients, whose symptoms were apparently simulated; this group was classed under various neuroses.

It is interesting to note that in a number of so-called neurotic cases there were also brought out certain signs of a possible underlying pathology linked with the alleged injury. This last group, however, quickly recovered after adjudication of their cases by a court of record.

#### SUMMARY AND CONCLUSION.

In medicolegal work, while one may expect an element of exaggeration on the part of a patient, painstaking examination sometimes reveals physical signs due to injuries to the spine and pelvis which subsequently show pathologic changes, although it is difficult to ascertain the line of demarkation as to where feigning(?) ceases and actual pathology begins. Such condition should be kept in mind, and a careful check-up instituted, if the physician is to forego the chagrin that sometimes confronts him in a court room.

Lumbosacral and sacro-iliac luxations actually follow traumatism of the lower spine and pelvis and can be clinically demonstrated in a majority of cases. Indirect traumatism to spinopelvic ligaments, as a sequel to post-operative gynecology and deep x-ray therapy, can be classed with trauma to the same region in a female spine and pelvis as external force. A sprained back which points to low spinal region chronicity is often caused by unrecognized detachment of tendoperiosteal insertions and tears at the muscle-aponeurotic junctions. Nerve involvement of central or peripheral origin often accompanies these injuries. In such instances, bladder symptoms may also be present.

Psoas spasm is an invariable and early symptom in lumbosacral sprain. This symptom is always to be looked for if there be palpable atrophy of the muscles of the spinal erector group.

Although laboratory and the x-ray findings are invaluable assets in differential diagnosis, the clinical symptoms and physical findings nevertheless remain most useful guides to proper treatment.



# JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if,—

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

## DATE OF ANNUAL MEETING.

Announcement has just been made that the dates selected for the next Annual Meeting are June 9, 10 and 11, and you will remember that the House of Delegates determined the place should be Haddon Hall, Atlantic City. This advance notice is presented now in order that members will have abundant opportunity to prepare for the great event. Make note at once upon your calendar that those dates are reserved. Engage your accommodations at the hotel. If you desire to contribute to the scientific program, get in touch promptly with the Chairman of the Program Committee as he is now busily engaged with his task of selecting topics and speakers.

## THIS MONTH'S JOURNAL.

We have been much pleased by reports of a growing interest in the Journal, manifested not alone by comment on its increasing size and upon the broadening scope of its several departments, but as evidenced concretely in the offering of scientific contributions for publication in our columns. The thought occurs that it may be further helpful to readers if we occasionally call attention to items of special interest. Of course, from our biased point of view every item in each monthly issue is deserving of your attention, and we feel quite confident that no member of the State Society can afford not to read the Journal.

We do not expect, however, that every member will be interested in every article or item published. Our tastes and needs vary considerably. But there are certain matters of such universal interest that every member of the organization should want to know about them and we may, without risk of making invidious comparisons, direct your searching eyes to these important topics.

In the first place, then, the original articles presented this month are of such quality as to reflect great credit upon the profession of this state; some of them are highly meritorious. The report of proceedings of the New Jersey Sanitary Association contains, in abstract form, an unusually good series of practical papers. The County Society Reports are well up to the established standard, and will stand critical comparison with work published from any other state; reading of these reports will keep you fairly well informed as to what your confrères are doing.

Under "Current Events" you will find a resumé of recent work of the Welfare Committee, presented with the idea of keeping members informed concerning essential details of the work in hand.

Particularly would we advise your perusal of the "Special Article" discussing the regulation of medical practice by law. This is the first of a contemplated series of articles on this subject and we will be pleased to receive suggestions designed to aid in elucidation of the subject.

## ABOLITION OF DIPHTHERIA.

Preliminary arrangements have been made for launching a state-wide campaign against diphtheria, and your personal assistance toward its successful development is hereby solicited. The combined efforts of the State Society's Committee on Public Hygiene and Sanitation, the State Board of Health, and the Editor of the Journal, will be directed to promotion of the laudable ambition to abolish this disease from our community. Many local health agencies have already tackled the problem and their success encourages us to believe that others can do likewise.

The most striking example so far reported comes from another state; the city of Syracuse, New York, has had no cases of this disease for more than 2 years, and has proved the efficacy of toxin-antitoxin as a preventive measure. What that New York city has done, any New Jersey city or county can do. The Medical Society of New York State has its program well advanced and is operating under the slogan—"No More Diphtheria by 1930." Let us emulate their example and see if we cannot match them in results.

An independent start has been made and much good accomplished in some districts. Recent reports indicate important developments in other isolated areas. The effort of the above mentioned combination of state forces will be to take advantage of these sporadic efforts for correlation of their localized works, to render such aid as may tend to bring about an harmonious expansion over wider areas, and to apply the benefits of the campaign to the entire state.

The part of the Journal will be to disseminate information as to plans, and progress being made, and we earnestly beseech our readers to respond promptly to appeals from the Hygiene Committee or the Director of Health, and to lend all the aid possible to making this preventive medicine campaign a notable success.

The county societies will be called upon to participate in this work and it is hoped that every official and every member will render active service.

## POSTGRADUATE STUDY THROUGH THE COUNTY SOCIETY.

In the Welfare Committee Report you will find some suggestions as to methods of promoting graduate study under the auspices of the county medical organization. Some of you have already given expression to views upon this subject, in your answers to the "questionnaire" that was inserted in the October Journal, but many of you have not yet returned that paper, and we cordially invite everyone to offer suggestions as to how postgraduate study may be best promoted. Do you want something of the kind instituted in your county? Will you attend courses of study or lectures if they are provided? Do the suggested plans appear feasible and applicable to your county? Have you some workable alternative to propose?

Let us hear from you at once so that the committee dealing with this problem may have the benefit of your counsel.

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## PHYSICIAN WANTED.

The Editor not infrequently receives letters from hospital interns, recent graduates, senior students, and even active practitioners of medicine inquiring about possible good locations for or districts needing physicians, in New Jersey. It is quite proper that this office should be considered a clearing house for such information; informing unsettled physicians of possible openings or of the advantages of certain locations, and, on the other hand, endeavoring to find a suitable candidate to fill a community vacancy.

It will be appreciated if members will inform us whenever they know of desirable locations.

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## AUTOMOBILE CASUALTIES IN NEW JERSEY.

The number of deaths and serious accidents caused by automobiles has been rapidly increasing each year in every state of the Union. That New Jersey is not an exception to the horrible state record is shown by a re-



cent report of the number of pedestrians killed here during the past year—an average of 10 fatalities each week.

In the "Topics of the Times" column, the New York Times of December 31, 1926, said:

The New Jersey Bureau of Vital Statistics reports that 463 pedestrians were killed in that state by automobiles in the first eleven months of the year. This is an argument for more county parks and reservations where pedestrians would be safe. Essex and Union Counties have such regions for recreation. A good deal is heard of providing special roads for motor vehicle traffic, but the convenience and pleasure of walkers are largely neglected.

If any state should show a decline in automobile casualties, it is New Jersey. In Motor Commissioner Dill it has had one of the most able and energetic officials in the country. He has no mercy on incompetent drivers, never spares the drunkard, and is always devising means to make the highways safer. Yet the casualty curve is still going up.

General Joe Wheeler, after having a close call at Broad and Market Streets, Newark, declared that the junction was more dangerous than San Juan Hill.

Apparently, one very important factor in the causation of road accidents has been entirely overlooked or ignored by all automobile commissions that issue licenses to drivers. In no state is there any proper provision for ascertaining the physical fitness of would-be chauffeurs. Persons with wooden arms and wooden legs—not to mention the larger number with wooden heads—are freely granted license to drive machines possessing all the death dealing properties of the ancient Juggernaut. No longer does the victim have to "cast himself under the wheels"; the most careful pedestrian is fortunate today if he succeeds in evading this destructive machine. No consideration is anywhere given to the driver's ability to distinguish colored lights, though traffic in our cities is largely directed now by such light signals, and despite the fact known very generally that a large percentage of both men and women are color blind. Persons too deaf to hear verbal orders—even too hard of hearing to perceive the raucous signal notes of a claxon—may acquire a driver's permit. In some few places a casual, but most inadequate, test of vision is made; but nowhere at present is this test of such nature as to assure elimination of persons with extremely faulty vision or with serious eye diseases that impair sight under certain conditions.

What proportion of the deaths and mutilating accidents caused by automobiles are due to the physical unfitness of drivers is not known, but that the percentage is high cannot be doubted.

The State Society is requesting New Jersey's Motor Vehicle Commissioner to consider this problem and to take such steps as may be necessary to safeguard the lives of our citizens, whether walking or riding.

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## GROUP LIFE AND HEALTH INSURANCE.

We are informed that the plans for group life, health and accident insurance, as heretofore published in the Journal, have failed of adoption because the required 75% of membership support could not be obtained. The time limit for subscriptions was twice extended and the committee, under Dr. Pinneo's leadership, made desperate efforts to secure the necessary number of subscribers, but results were disappointing. More interest was shown in the health and accident than the life policy, and Dr. Pinneo informs us that a new proposition, limited to health and accident insurance and not requiring percentage quota of the membership, is under consideration, and may be presented through the Journal later. The proposition being considered offers a lower premium rate than the original policy that was approved.

Those who applied for the policies originally recommended and sent in their checks, may leave the latter on deposit against possible acceptance of the new form of policy, or, may secure return of the money upon request directed to Dr. Pinneo.

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## LEGISLATION.

As we go to press, word comes that the chiropractors have reintroduced their old Bill providing for establishment of a separate board of examiners. Every member of the medical society should at once explain to his representatives, senator and assemblyman, the danger to public health that would arise from enactment of such a law.

## Esthetics

In this department of the Journal, July, 1926, we discussed the desirability of holding an exhibition of the paintings and sculpture produced by members of the medical profession, as has been done on several occasions by the physician artists of France. Information has just come to hand that the first American exhibition of this kind is to be held in New York City in the near future. As there are several interesting exhibits scheduled for the next month we present the following notices thereof:

### DOCTORS AS ARTISTS.

Sculpture, paintings in oils and water colors, wood carvings and etchings, from the hands of surgeons and physicians, will be exhibited at the Academy of Medicine, New York, from March 1 to March 15. It will be the first display of its kind ever held in America, and among the exhibitors are many well known in medicine and surgery.

Dr. R. Tait McKenzie, Professor of Anatomy at the University of Pennsylvania and a plastic surgeon of note, whose works in clay and marble include the Victory Memorial at Cambridgeshire, England, and the Rev. George Whitefield statue in Philadelphia, will have several examples of his sculptural art there.

Dr. F. T. Cotton of Boston, widely known as a surgeon, is a painter, and according to critics his hands are as skillful with the brush as they are with scalpel and lancet. Dr. Hermann Fischer of New York will exhibit etchings.

Dr. I. Seth Hirsch, for many years X-ray specialist at Bellevue, is a sculptor and will display several of his figures. Dr. Henry S. Patterson, President of the New York County Medical Society, paints water colors in his spare time and will have several examples at the exhibition. Dr. Percy Friedenberg, ophthalmologist of Mount Sinai Hospital, will show some dry points.

Dr. James C. Ayer, surgeon, and Dr. R. Burton Opitz, heart specialist, of New York, and Dr. Chevalier Jackson of Philadelphia, bronchoscopist, will exhibit paintings, and Dr. S. Solis Cohen of Philadelphia will display pastels. Many who have seen etchings by Dr. Leigh H. Hunt of New York did not know that he was a physician. Examples of his drawings will hang at the Academy.

Dr. Samuel Lambert, President of the Academy, has loaned to the exhibit a collection of etchings by the late Dr. Hayden and the paintings and etchings by the late Drs. Arped

Gerster and Leroy M. Yale. Altogether about 250 works representing doctors have been contributed.

### MONTCLAIR ART MUSEUM

The water colors of Addison Burbank will occupy the main gallery of the Montclair Art Museum, Montclair, N. J., during the month of February. Mr. Burbank spent a year of work and study in Europe. Most of his subjects are of the Riviera and the hills of Italy. In the present collection is included a group of more recent American paintings.

### BROOKLYN MUSEUM.

A large exhibition of watercolors, pastels and drawings will occupy all of the gallery space in the west wing of the Museum's art department. The exhibit sets out to show the present state of the art of watercolor and with few exceptions follows the Museum's usual custom of not showing the work of artists who have been represented in the preceding show. The catalogue lists the names of over 100 artists who are represented by more than 600 exhibits. A considerable number of works of artists who paint in California and the Southwest are included, and a number of Brooklyn artists are also represented.

In addition to this exhibition a section of the Museum's gallery will be devoted to a special showing of a group of about twenty oil paintings by the Swedish artist, Gustaf Adolph Fjaestad. The exhibition will last until February 28.

### SIR WILLIAM OSLER.

It has been said that while Osler accomplished much in medicine, yet he will be much longer remembered for the greatness of his personality than for his scientific accomplishments. Osler's colleague and friend, Dr. W. S. Thayer, contributed the following poem to the *Memorial Volume*:

An eye whose magic wakes the hidden springs,  
Of slumbering fancy in the weary mind.  
A tongue that dances with the ready word  
That like an arrow seeks its chosen goal,  
And piercing all the barriers of care,  
Opens the way to warming rays of hope,  
A presence like the freshening breeze that as  
It passes, sweeps the poisoned cloud aside,  
An ear that 'mid the discords of the day,  
Swings to the basic harmonies of life,  
A heart whose alchemy transforms the dross,  
Of dull suspicion to the gold of love,  
A spirit like the fragrance of some flower  
That lingers round the spot that it has graced,  
To tell us that although the rose be plucked  
And spread its perfume throughout distant halls,  
The vestige of its sweetness quickens still  
The conscience of the precinct where it bloomed.



## Medical Ethics

### RESPONDING TO EMERGENCY CALLS.

John Hammond Bradshaw, M.D., F.A.C.S.

*"Some persons labor under the impression that Physicians and Surgeons are Public Functionaries; and that the law compels them to go at the beck and call of anyone, willing or unwilling, pay or no pay, straight or crooked."*

The above sentence comes to mind when publicity is given in one of our cities to the distressing failure to find a doctor to respond to a night call for an alleged emergency case. The adjective, "distressing", is used intentionally. It is distressing to need a doctor and fail to get one. It is very distressing to a physician to be unable to respond to an emergency call. It is especially distressing that there seems to be a misunderstanding between the public and the profession in this matter.

Of course, we are all aware that there is no written law of the land that compels a doctor to respond to any call, any more than there is a written law that compels an unattached lawyer to take charge of a case at law, or that a minister shall be compelled to perform the marriage ceremony for your daughter. Let this be plainly understood. But sometimes unwritten laws are of as great importance as those that are recorded in a book. These are the laws the observance of which determine whether a man's conscience is on the job, whether it is a going concern, and which establish his standing and the respect of his kind.

The merits of the case in question have little to do with the fact that the ethics of the matter are well known and established. Granting the necessity in the daily press for scare headlines, and granting the evident exaggeration in the statement that 23 physicians refused to go in one night to one case, nevertheless, the evidence plainly shows that something did go wrong. Doctors hold no brief for perfection or infallibility! But "believe it or not", doctors themselves are the most distressed at anything that hints at reproach of the profession. A scandal in their ranks means more to them than it can possibly mean to outsiders.

The friendly challenge is here made. Show us in all civilized life a class of men who work harder, give up more sleep and repose, (and sometimes pleasure) subject their families to more trials (not their own), respond to more imperative demands of others, and honestly try harder to do good to their fellow-man!

## Medical Economics

### WHAT PRICE PSYCHOLOGY?

George H. Lathrope, M. D.

There is great and uneconomic waste in medicine due to woeful lack of knowledge in the field of psychology.

It must be admitted we should know more of this subject: the great question is, how or where are we to learn? There is a large group of symptoms which physicians constantly recognize and class as hysterical or neurotic. From such classing of symptoms they easily pass to the classification of individuals in like manner, with the result that neurasthenia and hysteria become waste baskets into which are incontinently thrown whatever is not understood and whomsoever becomes bothersome or refractory. The complaint is "functional", the patient is "not really ill", he just "enjoys poor health", and so on ad nauseam. For the more part, such patients ultimately fall into the hands of the Christian Scientist, the chiropractor, the agent for yeast cakes, or other worker of miracles; are exploited to the limit, and, curiously enough, in the exploitation *may* find relief; a situation which redounds in no wise to the credit of medicine. A few of these unfortunates cling with surprising faith and persistence to the regular ranks, and are so happy at last as to fall into the hands of some physician who, consciously or unconsciously, has developed a knowledge of psychology along with his medicine, and does for them what others have failed to do. Such practitioners are comparatively too few: largely so because no groundwork is given in this subject in the medical school curricula. Thus, only after graduation the student learns the neglected lesson in the long hard school of experience, and in his early and most productive years fails largely to grasp the significance of that phase of the problems which confront him. When at last he has gained light, old age is creeping on and a few short years only are left in which to apply this knowledge so hardly won.

Psychology has too long been left to the realm of abstract thought, and its basis on hypothesis has approximated it more nearly in character to philosophy than to exact science. It has had no, or little, factual basis. The psychology of James and Baldwin of our undergraduate years was as difficult to comprehend as Mrs. Eddy's "Science and Health." This failure of comprehension may have been inadequacy on the part of the pupil, but advancing years breed the suspicion that some of the inadequacy lay with the subject. Janet is somewhat better in his "Principles of Psychotherapy". He had had medical experi-

ence, and sometimes is simpler; but soon he too wanders off into the abstract, and leaves the student wondering and floundering in a maze of words whose continuity of expressed ideas is anything but clear. Freud appropriated to himself some of Janet's ideas, wreathed them in mysticism, and impregnated the whole with distorted sex symbolism, adding little but confusion for the neophyte looking for knowledge.

MacDougal of Harvard has been hailed as the modern apostle of psychology. He is advertised as having spent years in the practice of medicine. Certainly this would never be suspected by the casual reader of his "Outlines of Abnormal Psychology". Chapter II, on Functional Disorders, apparently a key chapter to the volume, is based on a complete misconception of the term *functional* as medical usage goes today. With this wrong major premise his argument soon becomes quite as incoherent as all the others, much as one would anticipate. Dunlap of Hopkins comes nearer to bringing his subject down to a factual basis than any writer so far. He distinguishes always between argument based on exact data and that based on hypothesis; at the least, he is always understandable. Two of his smaller volumes, "Mysticism, Freudianism and Scientific Psychology", and "Old and New Viewpoints in Psychology", are well worth taking the time and effort to read.

All of which is to say that while there is no end of writing on psychology, and books without number, it profits little the hard working physician. He wants something he can apply to his everyday task. He asks for bread and a stone is handed him. He seeks a working formula and is offered a jargon. His great need is for a *medical* psychology as distinct from the abstractions of the near philosophic school.

Perhaps some publisher will one day bring out a text book on psychology whose various chapters shall be written by men, each of whom shall have successfully practiced medicine for a quarter of a century. The result may not please the esoteric psychologist, but it will have something in it for the rank and file of medical men, and—who knows?—it might contain the germs, real germs, of a true psychologic science.

Meantime much waste goes on: waste of effort on the part of both patient and physician, waste of time and waste of money, waste of health and waste of brains. Instead of avoiding the problem medical men should face it and endeavor to the best of their ability to let some, if only the smallest ray of light into this darkest Africa of medical science.

## County Medical Surveys

### MEDICAL SURVEY OF CAMDEN COUNTY.\*

F. William Shafer, M.D.,  
Camden, New Jersey.

Two important medical events resulted from the French and Indian War (1758-1766). One was the founding of the University of Pennsylvania by Benjamin Franklin in 1765. This gave an opportunity for apprentices to acquire a more liberal and scientific education. The other was the organization, in the following year (1766), of the first Medical Society in America—The New Jersey State Medical Society. Dr. Isaac Harris, father of Dr. Samuel Harris who was the pioneer physician of Camden, was one of its original members.

It was also during this Colonial Period that a great advance was made in medical practice in America through the introduction, by Cotton Mather, of vaccination against small-pox.

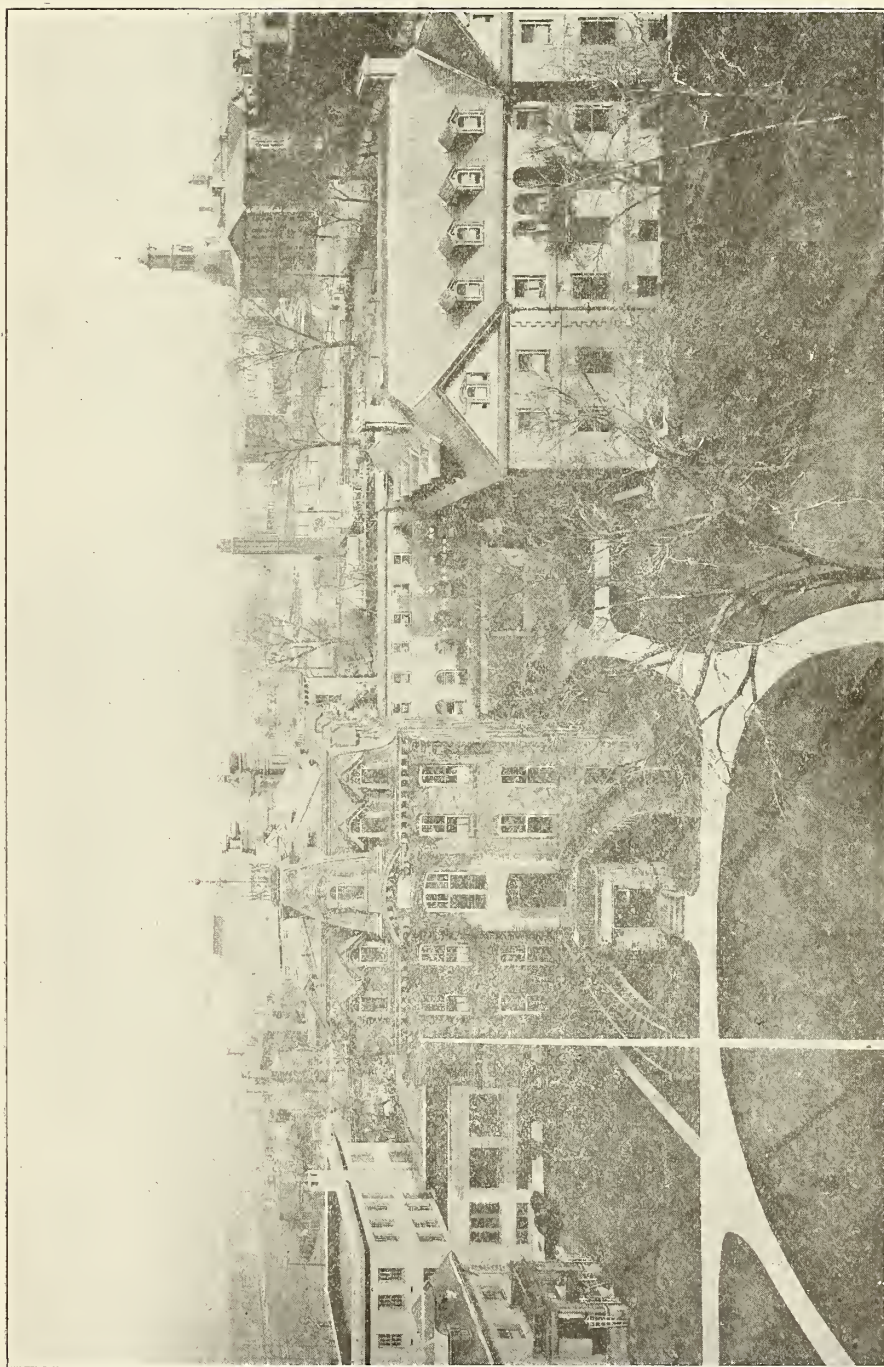
During the Revolutionary period Camden County was part of "Old Gloucester". It was separated by Legislative Enactment, March 13, 1844. The position of Camden County exposed it to the raids of Count Dunop and Major Simcoe, under whom on different occasions the British invaded the county at Cooper's Point, Haddonfield and Gloucester City. On October 22, 1777, the British army met a disastrous defeat at Red Bank.

The profession rendered the county honorable service both in the government and the army. Dr. Benjamin Van Leer, of Haddonfield, served as a member of the Committee on Correspondence, which became later the Continental Congress. Dr. Jacob Harris participated in the battle of Red Bank, and dressed the wounds of Colonel Count Dunop, the young Hessian commander, who fell mortally wounded in the fight.

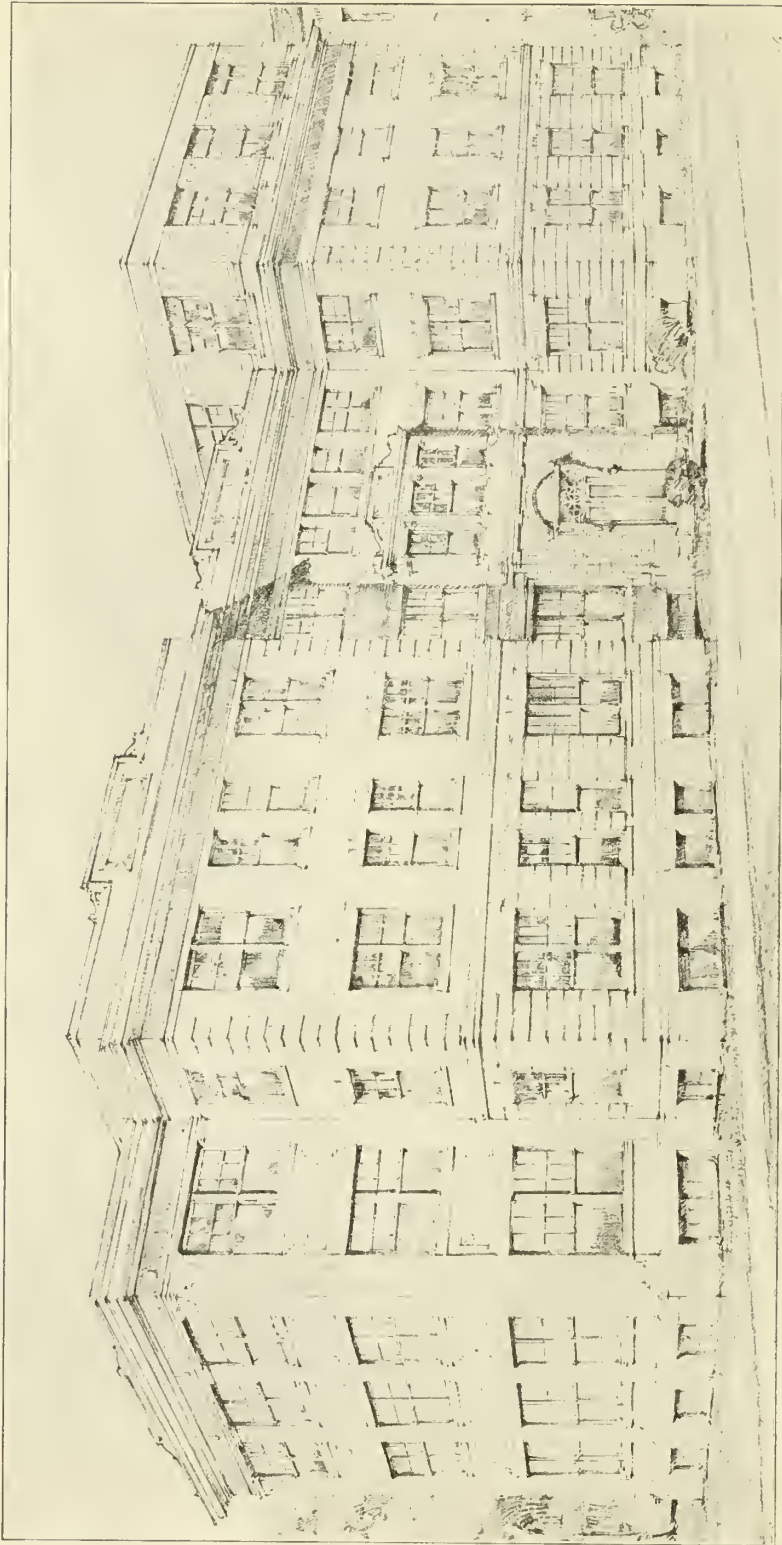
Dr. Samuel Harris was the first physician to locate permanently in Camden. He lived in the house still standing on the southeast corner of Second and Cooper Streets. Dr. Isaac S. Mulford began his medical career in Camden in 1823. He was the connecting link between the physicians who were identified

\*Acknowledgement is made to Godfrey's History of the Medical Profession of Camden County, the author of which presented the writer with a copy.





COOPER HOSPITAL, CAMDEN, N. J.



COOPER HOSPITAL, FRONT FACADE



with Old Gloucester and those who were distinctly Camden County physicians. Dr. John R. Sickler opened a drug store here in 1834.

In the year that Camden County was organized the following physicians practiced within its limits: I. E. Mulford, R. M. Cooper, L. F. Fidler, O. H. Taylor and J. R. Andrews in Camden; B. W. Blackwood, J. P. Thornton, C. D. Hendry and A. D. Woodruff at Haddonfield; W. C. Mulford, Gloucester; M. Synott at Chew's Landing; W. Parhan and E. C. Chew at Blackwood; G. Barrows at Tansboro and J. C. Risley at Berlin. The District Medical Society for the county was organized in Haddonfield August 14, 1846.

The growth of Camden, the increasing number of physicians, and the necessity of bringing the physicians of Camden into closer relationship with each other in order to advance medical knowledge, led to the formation of the Camden City Medical Society, which was organized June 2, 1853. At this meeting Dr. R. M. Cooper read a paper in which he stated that as the population increased and the sanitary improvements of the city advanced, he believed that malaria would soon cease and give place to typhoid fever.

The Cooper Hospital was incorporated March 24, 1875, under the name of the Camden Hospital. This was changed to its present title March 6, 1877, by the State Legislature. Its 38th annual report shows the number of patients admitted during the past year was 4472; the number of visits to the outpatient department was 49,118. The cost of operating the hospital last year was \$261,382.68. A new private patient building, given by Mr. S. C. Childs, will be completed in October. The hospital will then have a capacity of 300 patients.

The West Jersey Homeopathic Hospital was incorporated May 15, 1891. In its 35th annual report, with the completion of the 2 buildings under construction, the gifts of Mr. S. C. Childs, the hospital will have a bed capacity of 250. The number of patients admitted to the hospital last year was 3,183. The dispensary treatments for the year were 32,786. The disbursements for the year were \$150,900.25.

The Camden County Hospital for the treatment of tuberculosis changed its location from Ancora to Lakeland last December. It was erected at a cost of \$1,650,000. Its bed capacity is 260. Dr. Martin H. Collier is the medical director and superintendent. Dr. Dunham, formerly chief of the Tuberculosis Bureau of the state, is the resident physician.

The Children's Hospital is a complete separate unit, modern throughout, with school attached.

The present Camden City Municipal Hospital for Contagious Diseases was erected in 1912. It is situated on 15 acres of ground near the city limits, and has accommodations for 110 patients. The daily average number of patients during the present year has been 30. Dr. J. C. Lovett is the capable medical director and 11 nurses are employed. The City Laboratory is also located here.

Dr. Wallace MacGeorge is the oldest practicing physician in the county; he came here from Hightstown in 1869.

The Bellevue Private Hospital, located at the Plaza, was opened March, 1921. It has a bed capacity of 25, and Miss F. M. Burky, R.N., is the superintendent.

There are 200 practicing physicians in the county, 125 of these being located in the city of Camden. About 70% are affiliated with the medical societies. The Physicians' Motor Club has an enrollment of 100 doctors.

The population of the county, now approximately 250,000, has increased very rapidly during the last few years. The greatest single factor in this recent rapid development was the construction of the Delaware River Bridge. This was begun Jan. 6, 1922, and the bridge was opened July 1, 1926. It is longest expansion bridge in the world, has a capacity of 6000 vehicles an hour, and was erected at a cost of \$37,000,000. This project had its inception in the mind of Edward Sharp, who in 1814, laid out a street, 120 feet wide, called Bridge Avenue, at the foot of which the bridge was to be erected. Windmill Island, situated in the middle of the river, was to have been the landing. The failure to sell the stock resulted in abandonment of the scheme and the charter was revoked. The island was removed by the United States Government in 1894.

The water supply of Camden County, which is pumped from artesian wells, is of excellent quality, palatable, and free from contamination. There has been no epidemic of typhoid fever during the past decade.

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**The Strenuous Sex.**—Coach (to new player) —"You're great! The way you hammer the line, dodge, tackle your man and worm through your opponents is simply marvelous."

New Player (modestly)—"I guess it all comes from my early training, sir. You see, my mother used to take me shopping with her on bargain days."—Boston Transcript.

## Special Article.

### REGULATION OF PHYSICIANS BY LAW.

Scarcely a session of any State Legislature passes without someone proposing an amendment to the existing state law governing the practice of medicine, or the introduction of some new bill designed to confer legal recognition upon irregular followers of the healing art. For many long years the medical profession has been striving to maintain and further advance the standards of medical education, and to safeguard the public against danger to health and life through the inefficient service of ignorant and ill-equipped practitioners.

The medical departments of our universities have steadily increased the demands upon students of medicine until it now requires expenditure of considerably more time, labor and money to acquire the degree of Doctor of Medicine than it does to enter any other of the learned professions. Coincidentally, the profession has voluntarily asked the states to raise the standards of tests applied to those seeking registration or license to practice medicine within their borders.

Combining these facts, we find that today the man or woman who would become established in the proper way as one competent to enter upon the practice of medicine must, in nearly all of our states, have acquired a preliminary education equivalent to receipt of the degree of Bachelor of Arts, before entering upon the study of medicine; must then spend 4 years in a medical school that has itself complied with certain standards that give it a recognized position in the educational world; then spend at least 1 year studying the practical application of his knowledge in a hospital that is of acknowledged standing—medical schools and hospitals both being subject to classification by independent, outside agencies; and, must then submit to examination in all branches of the healing art by a Board of Medical Examiners appointed by the State, in order to secure a license or permit to offer his services to the public.

These are reasonable requirements of anyone to whom care of the lives of our people is to be entrusted, and it would seem only fair that everyone who desires, or feels called upon, to practice the healing art in any way should comply with these fundamental regulations. Nothing is more precious to us than life. The public has a right to require that those who set themselves up to deal with

matters of life and death shall give evidence of possessing special knowledge concerning such matters, and the standard of education required of those about to become physicians can scarcely be placed too high. Knowledge never hurts anybody. Ignorance hurts many people. Let us, therefore, establish a high standard and a severe test for those who would be licensed as healers, and let us apply that single standard alike to all would-be healers.

If state authorities are to determine who shall be permitted to practice medicine—and no one seriously questions the state's right in that direction—it seems not unreasonable to demand that the state shall establish a definite standard of requirements and measure all applicants for license by that same standard. That is and has always been the position taken by members of the regular medical profession; they, in fact, first asked for inauguration and legalizing of such standards, and they continue to ask for uniform application of the law.

We have stated that nearly every year some group of would-be healers ask for modification of these standards and for legal permission to enter on the practice of medicine without giving evidence of possessing that degree of education or experience required by regularly licensed physicians. We would like to amplify that statement with an explanation of what happens where legislative bodies are seduced into granting special privileges to such groups and believe we can best accomplish our object by quoting from an address by a distinguished Chicago lawyer, Mr. H. E. Kelly, who has given much study to the problem of legally regulating the practice of medicine. Mr. Kelly speaks as follows:

#### Standards Are Made Higher for Educated Doctors and Lower for Ignorant Ones.

The advocates of low legal standards of educational requirements for persons following the occupation of healing the sick have succeeded in getting legislatures in many states to abandon the single standard of educational requirements for all healers, and to adopt in its place, as a special privilege to them, different standards for different kinds of healers. In such states the usual high standard of proficiency remains for educated physicians who desire to practice their profession by the open use of all therapeutic agents, including drugs and surgery; but exemptions from that standard have been created in behalf of persons who designate themselves by a particular trade name and profess to use only one specific therapy or method. Those healers in favor of whom the exemptions have been created are thereby allowed, with much less preparation, to hold themselves out to the public as doctors of the higher proficiency are allowed to do.



## The Poor Doctor Gets the Reward Belonging to the Good One.

The consequence is that in the public mind no doctor is any better than any other healer, regardless of training or proficiency, because all persons holding themselves out as doctors appear to the public to have the same legal status and the same unqualified indorsement by the state. The legal status is the important thing in the public mind, because the people consider a doctor's proficiency as established by the stamp of the state's approval. They do not realize that the various persons holding themselves out as doctors possess different qualifications, and that some of them are capable of performing better service than others.

Even under statutes that require those persons who practice under a limited license to hold themselves out to the public as doctors with descriptive words of limitation, the people lose sight of the legal limitation, and look at every doctor who presents himself to the public as equal in every way to every other doctor. The limitation in the phraseology of the license, or in the manner in which the doctor holds himself out to the public, as a practical matter brings home to the people no notice of any substantial limitation. Accordingly the intention of the statute to apprise the people of a limitation is not realized.

Under such multiple standards of licensure of doctors the best prepared physician is subjected to the most exacting burdens in qualifying himself to pursue his occupation, while men of inferior qualifications, and of no qualifications whatever, hold themselves out to the public as doctors without subjecting themselves to those burdens. In other words, the most inefficient healers are given the full benefits, so far as the public confidence is concerned, and so far as public confidence can be inspired by law, of the honorable professional status actually created by the hard work and self denial and by the ability and skill of the best physicians. This situation results in a wrong to the better qualified physicians, because it gives the rewards of their work, ability and skill to men of inferior accomplishments, and a wrong to the people, because it sets up inferior men as doctors and palms them off to the sick as men of ample proficiency. Therefore, instead of receiving the benefit of thoroughly qualified practitioners, the people are menaced by the service of doctors, vouched for by the state, of admittedly less than complete qualifications, without warning as to the danger to the individual patient of employing a doctor not completely qualified to perform the service for which the patient may call him to the bedside.

## State Fails to Realize Objects of Regulatory Legislation.

Moreover, the multiple standards of educational requirements for doctors prevent the state from rendering the particular service which it undertakes to render by a regulatory statute. While the state professedly undertakes to supply fully qualified doctors to the people, under such standards it actually abandons this intention, and supplies doctors admittedly not fully qualified to perform the required service. Under such a system those who are permitted to practice as doctors under a limited license, by only a limited method, upon only a limited number of diseases, or upon only a particular part of

the body, are placed in a position to delude the people and inevitably to degrade the doctor's profession in the minds of the people by inducing them to rate all doctors by the standards of bad ones. The object of the state to supply a well prepared physician, in whom the people may reasonably place their confidence, is frustrated by multiple standards, under which poorly prepared doctors as a matter of fact are permitted habitually to pursue the high-grade physicians' occupation.

There is no defense for the policy of putting the state's stamp of approval on unqualified healers. Every doctor, regardless of his proficiency and of the therapeutic agents used by him, is habitually and necessarily called to perform the fundamental service for the sick, that is, to ascertain the nature of the disease which the patient has, and to direct the application thereto of the best remedial agent, without exposing the patient or subjecting the people to unnecessary danger. Therefore, no person should be permitted to present himself as a doctor of any kind, under the state's authority, unless he is properly trained to serve initially any patient who may call him.

## Special Privileges Are Extended to the Less Qualified Doctors.

The practical effect of multiple standards is to extend by law a special privilege to the less qualified doctor. Exemptions are made in his favor from the standard provisions set up by the statute as reasonable and necessary for the protection of the public. In much of the late legislation osteopaths and chiropractors, and generally those healers pretending not to employ drugs and surgery, practice healing under the special privilege of being relieved from qualifying themselves as other doctors are required to do. Such a special privilege is illogical, because the doctors enjoying it diagnose and treat diseases; and that is the essence of the occupation, and is all that any other doctor does. Such a special privilege is also unfair to doctors who are required to meet the full qualifications and yet in practice are permitted to enjoy no greater actual privilege than the sub-standard practitioners. It is also prejudicial to the people, because it allows sub-standard practitioners, confessedly not prepared in accordance with recognized standards, to attempt to cure diseases for the treatment of which standard qualifications of proficiency are required for the benefit of the patient and for the protection of the public health.

## Healing Is an Indivisible Science.

It has become a common argument that if a healer selects one of the items of the known curative agents, and confesses his special devotion to it in treating disease, his belief as to what training he needs for the practice of this particular therapeutic agent is of consequence in determining what the law should require of him in the way of preparatory training. This argument needs but to be stated to exhibit its complete absurdity. It is not a question of an uneducated man's belief as to what he needs to qualify himself to heal diseases, but it is a question as to what should be required of him by the people in view of the profession which he undertakes to follow and of the obligations which he undertakes therein to discharge. His personal view of what his qualifications should be ought to be given no weight; and in similar

situations the personal view of an ignorant man is customarily given no consideration whatever. If the belief of an educated healer is to be the basis upon which standards of educational requirements are to be established, and this idea is to be pursued logically, surgeons may not be required to study drugs or medicines, and general practitioners may not be required to study surgery, and the doctor who limits himself to the eye, or the ear, or the teeth, may not be required to study the general anatomy of the body, or the nervous system, or the action of the heart, or any of the other basic educational subjects.

The people generally accept the proposition that before a person should be allowed to hold out to practice a specialty in the treatment of human ailments, as that of the eye, or the ear, or the x-ray, or radium, or any other specialty, he must first have qualified himself by acquiring knowledge of all branches of the science of treating human ailments, being permitted thereafter to devote himself to preparation to practice his specialty. Why should an osteopath or a chiropractor be exempted from this generally accepted proposition? There is no reason; and on the basis of the logic and practical administration of the healer's functions he should not be exempted. Osteopathy or chiropractic is not a separate science. It is merely part of the general science of treating human ailments. One following that method of treatment is no more discriminated against by being required to learn the fundamentals of the general science of treating human ailments, as prescribed by the legislature, than is a specialist, who confines his practice to some particular part of the body or to some particular method of treatment, but is nevertheless required to study all parts of the body, all diseases, and all forms of treatment before being permitted to practice his specialty. But under the present claims of osteopaths, who have now departed from their original doctrine of restricting themselves to massage and kneading without the use of drugs or surgery, and are claiming the right to use drugs as they desire and to perform surgical operations, an osteopath thinks himself discriminated against when he is not permitted to practice surgery and make use of such parts of general therapeutics and materia medica as he may think himself able to employ with profit to himself.

#### Practice of Only One Remedial Agent Impossible.

There is a false notion that if a man uses only one agency for healing a disease, such as osteopathy or chiropractic, and alleges that he intends to restrict himself to the use of one of these forms of treatment, he ought to be required to study only so much of the world's learning about diseases and their cures as will enable him to administer osteopathy or chiropractic. A mere difference in the therapeutic agents used in healing a disease is not regarded by scholars in science as a governing factor in determining the education necessary to practice the doctor's profession; nor should it be in setting the legal educational standards for the qualifications of persons to hold themselves out to the people as doctors. It is the physician's business to diagnose diseases, discover their existence and nature, and to apply the best remedy, not a limited remedy, to the cure of them. For this task no man can be qualified who is merely engaged in indiscriminately applying one remedial agent to all ailments.

The use of various specific therapeutic agents, like massage and kneading according to the os-

teopathic or chiropractic methods, is improperly designated, even in some court decisions, as a "system" or "school" of treatment of human ailments. The use of such an agent is no more a "school" or "system" than is the use of rhubarb or a hot-water bottle. Such curative agents are merely items in the long list of healing agents. If an ignorant man, because he knows no other method of treatment, uses only massage, or a hot-water bottle, for the treatment of diseases, he may not be said to be following the tenets of a "school" of healing science. He is merely restricting himself to one of the innumerable methods of curing diseases. Instead of receiving special privileges by law for being a specialist in a "new school" or "new system" of healing, he ought to be denied the right to practice healing at all, because of his ignorance of most of the world's known curative methods.

#### The Law Must Provide for General Practitioners.

A standard of qualification, complying with which a doctor may practice on any part of the human body, on any disease to which man is heir, or by any remedial agent known to the world, without limitation, is necessary as a practical matter. It is not feasible to make all doctors specialists. Moreover, there manifestly must be the general practitioner with a wide acquaintance with all therapeutic agents and methods of healing. It is apparent that without him every small center of population, in order to receive the healing service necessary for its people, would be required to have a specialist in every branch of medical science. Such a requirement would deny necessary curative service to many people. The general practitioner is not only necessary for service in such localities, but he is primarily necessary in all localities as the first possible and convenient aid to be called by the patient, even though a specialist may later be found to be required. The standard for such a general practitioner must necessarily be fixed by the legislature as the standard of qualification for general unlimited practice.

#### Multiple Standards and Multiple Boards Are Evils.

While multiple standards in themselves are unjustifiable, and thwart the state in discharging its obligation to the people, their vice is intensified by the establishment, as is done in some states, of multiple elective boards of examiners to license applicants who purpose to use different healing methods. In some states there is one board for licensing the fully qualified physicians and surgeons, another for licensing homeopaths, another for licensing eclectics, another for licensing osteopaths, another for licensing chiropractors, and others for granting licenses to members of still different groups. If the multiplication of boards has stopped at any point, it is only because the followers of the innumerable other kinds of healing have not had enough political power to get separate boards for their particular cults. The logic of the situation would require under that system a separate board for every therapeutic agent. Ultimately, as different healing agencies should be promoted by advertising, for the creation of organized cults to give influence to their followers, the advocates of each therapeutic agent would have the logical right to a state administrative board of examiners of its own; notwithstanding that every physician has it within his reasonable accomplishment to direct the administration of all



therapeutic methods, and that parceling them out to innumerable advocates of special remedies is unnecessary and undesirable; and notwithstanding that the only object which the state can legitimately have in regulating the physician's occupation is to supply to the people well trained doctors of broad information and skill in diagnosing diseases and applying thereto the best remedies known to the world.

Under a multiplicity of boards there is an unnecessary economic waste in sustaining them. There is also the waste of administrative management and supervision incident thereto. There is, moreover, the conflict that comes from the various standards of educational preparation naturally set up in multiple administrations. Furthermore, the existence of numerous boards and of multiple standards accentuates and keeps alive numerous warring cults that interfere by their partisanship with the non-sectarian application of all remedial methods to diseases according to the dictates of science.

The object of the state to provide a well trained profession, therefore, is doubly nullified by multiple standards and multiple boards, under which inferior standards receive the state's approval and are perpetuated from year to year by new cults, new boards and continuous propaganda for dividing the practitioners of healing into inter-repellant, warring groups accentuating trivialities and preventing the direction of the power of the state upon the creation of a great profession under a single standard of efficiency for the benefit of the public health.

## Lay Mirror Reflections

### PREVALENCE OF RABIES.

In consideration of conditions in New Jersey at the present moment, the following 2 newspaper clippings are of interest:

#### SEVEN BITTEN BY DOG.

##### Animal Is Killed After Attacking Bayonne School Children.

Special to The New York Times.

BAYONNE, N. J., Dec. 7.—Seven persons were bitten by a large bull dog which ran wild here today on West Eighth Street, just as children were leaving a near-by public school. As the dog, a large animal weighing 80 lb. came charging into groups of the children, they fled, screaming in terror. Mary De Honey, 12 years old; 168 West Eighth Street, and Charles Aregula, 7 years old, 165 West Ninth Street, and three other children were bitten.

Two men who came to drive the animal away were also bitten. Meanwhile two patrolmen, sent to the scene, were afraid to shoot because of the danger of a stray bullet hitting some of the children. One policeman struck the dog on the head with a nightstick. The heavy club shattered without having any appreciable effect on the dog. The policemen finally drove the dog into a hallway, where they shot it.

All of the injured were treated by physicians and the head of the dog was sent to Jersey City to be examined for rabies.

## PREVENTION OF RABIES.

(N. Y. Times, Dec. 11, 1926.)

A few years ago the mention of a mad dog was enough to throw a neighborhood into hysterics. Perhaps not many persons believed in the efficacy of a madstone, but a kind of superstition hung about the whole subject of rabies. No one could tell exactly how the victim of a dog bite might be affected, and suggestions for curing him were just as vague. A merit of this situation was the fact that fear bred of uncertainty drove people to try every method, including the scientific anti-rabic treatment which prevents the development of the disease in all cases except one-half of 1 per cent.

Apparently there has been a strong reaction from the old feeling of blind terror. The Department of Health reports a disturbing increase in the number of rabid dogs in New York City and in the number of people bitten. But only about half of those attacked by the animals have applied for the anti-rabic treatment. This is an unusual and not a desirable turn for an increase in knowledge to take. Those bitten seems to feel that if the disease develops the doctors can cure them and no lasting damage will be done.

It should be known that the treatment is not a curative, but a prophylactic treatment. After rabies has developed it has no value, and in all cases where a bite is inflicted by a suspected dog it should be given at once. Bites anywhere about the head are especially dangerous, because the tendency to infection is increased.

## HOPE FOR CURE OF CANCER RESTS UPON EARLY RECOGNITION OF THE DISEASE.

(N. Y. Times, May 23, 1926.)

Two important papers on cancer were read this week at the American Health Congress in Atlantic City. One of them, by Dr. Francis Carter Wood, described the situation relating to this disease as "in a very unsatisfactory condition."

This feeling was due not to the fact that no "cure" for cancer has yet been found, and still less to the belief that there is nothing to do for those attacked by the malady, but to the failure of the public to respond as it should to the advice it receives to resort betimes to competent physicians and surgeons. Should they do so, something like half the thousands of lives now taken by cancer each year could be saved.

Unfortunately, delay in resort to the knife remains too common, while it is also true that in many cases internal cancers cannot be recognized by the available diagnostic means until it is too late.

Then there are quacks, with promises to cure by some secret remedy, and they do their part toward keeping up and increasing the cancer death rate. For all of their patients die. Sad to say, some of these quacks are men with a regular medical education, but not consciences.

Many of the reputable practitioners, too, came in for Dr. Wood's severe criticism because they did not recognize the existence of cancer as soon as they should and wasted precious time by not sending endangered patients to the institutions where alone are the specialists competent to handle these cases. An imperfectly performed operation is no better than none.

Dr. Wood's article ended with a moving appeal for putting more funds at the command of such bodies as the American Society for the Control of Cancer in order to extend the educational campaigns which they long have been conducting.

## VITAMINS IN USUAL DIET.

(N. Y. Times, May 7, 126.)

Although the scientists have been talking for twenty years about "vitamins", no investigator ever has isolated any of those substances. Their existence is merely an assumption from the effects which have been noticed when diets have contained or lacked certain foods. Experiments with animals have resulted, however, in definite conclusions to the effect that there are five kinds of vitamins. They are named after the first letters of the alphabet, and concerning three of them a good deal of fairly definite information has been secured.

This is given in a report just issued by the Federal Department of Agriculture; it lists 150 foods according to their values as sources of vitamins A, B and C. Data regarding vitamins D and E are still scanty.

Spinach, that respectable but unexciting herb, has the unequalled merit of supplying all three vitamins in considerable quantities, so that anybody eating enough of it need seek no further. Other things rich in Vitamin A, which is the growth-promoting member of the family, are egg yolk, whole milk, butter, cream, cod and other fish liver oils, and the livers themselves of both fish and animals. Vitamin B, the anti-neurotic one, is in tomatoes, peas, asparagus, okra and whole-grain cereals. The anti-scorbutic Vitamin C is derived from the citrus fruits, tomatoes, cabbage and turnips. It is the vitamin most easily destroyed by heat, and therefore it is well to eat raw the vegetables containing it.

To be sure of getting enough vitamins the diet should be well supplied with citrus fruits, cabbage, the greenleaf vegetables, whole milk, butter and cream. Those, it will be noticed, have been, for ages and everywhere, humanity's commonest foods, the race not having waited for the scientists to tell them what was good for it. Still, now that it has been told, it can more intelligently balance its rations. Fortunately the vitamins are not expensive nor hard to get.

## Medical Book Reviews.

(Department Director, Royce Paddock, M.D.)

### A SOUND ECONOMIC BASIS FOR SCHOOLS OF NURSING AND OTHER ADDRESSES.

Mary Adelaide Nutting, R. N. Pub. Putnam.  
(Reviewed by G. H. Lathrope, M.D.)

For doctors, particularly those on hospital staffs, but whether directly associated with the hospital or no, nursing education and nursing problems must be at some time or other matters of very direct interest. To all such the reviewer heartily recommends a perusal of Miss Nutting's addresses. But this collection of essays or addresses should have a far wider appeal than that. It is perhaps of most importance to Superintendents, directresses, and instructors in Training Schools for Nursing; nor should it be passed over by hospital administrators, members of medical

boards of directors, public health workers, and lastly, all those interested in the broad subject of education.

The theme which recurs constantly through these essays is the nurse's education in general, and in particular, the very meager endowment, or entire lack of it, which training schools for nursing enjoy. Miss Nutting points out succinctly this discrepancy in nursing education as compared with education in other lines of work for both men and women. The nurse gains her education in the face of great handicaps, and a remedy for this situation is demanded with great logic and force.

No one can read the book without being impressed with the seriousness of the problem. Perhaps not every one will agree with the major premise on which the argument is tacitly based—that the higher education of nurses as sought in some of the leading training schools is the ideal to be attained by all. The captious will perhaps talk of the "overtrained nurse"; and indeed there are not a few serious thinking people who feel that higher education in general is being somewhat overdone today; i.e., that we are educating at great expense a certain part of our population whose intelligence and heredity do not at all fit them for the rôles which a college degree ordinarily implies.

Possibly the development of such institutions as the Columbia Department of Nursing Education and the new department of Nursing at Yale will fill the need Miss Nutting cites in training women for administrative and public health work; and with that development the hospital training schools may return to the simpler task of supplying the bedside nurse who cares for the sick. When that has become the sole task of the hospital as an educator some of the need for lectures and study and "book learning" will disappear, and the old hospital work in the direct care of the sick may be more adequate to the educational requirement of that group. Those who wish to do administrative or public health work will go to Columbia or Yale or similar institutions.

This is a broad problem in education which is by no means near its solution but, undoubtedly, however one may think about it, all who read these essays will acknowledge a splendid presentation of Miss Nutting's side of the case. And if, as has been suggested, they accept her major premise they will find her logic entirely sound.

There is a second basic assumption upon which much of the argument is founded, which is that nursing is a "profession". This again is a premise open to objection. There is fair argument both ways. If one accepts the Standard Dictionary's definition that a profession is "an occupation that involves a liberal education, and mental rather than manual labor," then there is very definite criticism at once of many of the conclusions drawn in this book. It seems to us there is a certain confusion of ideas involved here and though Miss Nutting suggests the way out, and her own life work is a splendid illustration of that answer, she does not quite clearly present the distinction. She says in one address that the nurse in training has a choice of 4 fields of work before her. "They are administrative work in training schools and hospitals, teaching in them, public health work, and private practice; and each of these has a good many subdivisions and special lines of effort."

Our feeling is that throughout her book Miss Nutting rather emphasizes the first 3 to the exclusion of the fourth opportunity; whereas, as a



matter of fact, private practice is the basic and real career of nursing or caring for the sick. The other 3 are off-shoots from the parent stem. This point of view is probably developed from her own career which has been spent largely in the first 2 types of work and relatively little in the individualistic and more or less solitary occupation of direct care of the sick. A different type of individual with a different type of training is required for administrative and teaching work on the one hand, from that which on the other is required of the private nurse. The former is without doubt a profession, the latter is more nearly allied to skilled labor. The first requires primarily a higher intelligence and better education than the second. Somewhere between these two, but more closely akin to the first than the second, lies public health work. Now if Miss Nutting's argument be based on this distinction between functions, as we suspect that consciously or unconsciously it is, then we agree heartily in its application to the first 3 groups. That the fourth group, i.e. private nurses, requires this same advanced education seems an idea hardly acceptable, not even practical, and her own argument would seem to admit this. The very difference in objective of the last group from the other 3 would seem to indicate quite clearly a readjustment and separation of their educational standards. This problem has a striking analogy in the present trend of medical education, in which it is now recognized that training for the specialties, for research, or for public health administration, requires work beyond that which is given in the courses leading to a degree of M. D.

Miss Nutting writes interestingly and puts her ideas clearly. The book reads easily, is provocative of thought, and we hope it will be largely read by everyone interested in nursing education.

#### CAVERNOUS SINUS THROMBOPHLEBITIS AND ALLIED SEPTIC AND TRAUMATIC LESIONS OF THE BASAL VENOUS SINUSES.

Wells P. Eagleton, M. D., Published by MacMillan Company.

(Reviewed by C. S. McGivern, M.D., Atlantic City)

An excellent monograph, containing a resumé of all of the old and much that is new on the subjects which the title embraces. Coming at an exceedingly timely period, it will do much to stimulate a flagging interest in what has come to be regarded as a practically hopeless group of pathologic entities.

The chapter on modes of infection, with its classification on "routes of infection", is a most comprehensive one and the author has emphasized, in the chapter following, the ease with which an infection of an apparently trivial nature—such as a furuncle on the lip or the nose—may gain access to the cavernous sinus through the external angular and orbital veins and produce an acute, fulminating, thrombosis which may terminate fatally. He also stresses the necessity for rapid, thorough, radical operative procedures, if anything is to be gained by operative intervention. The book is replete with instructive citations of cases, accompanied by temperature charts which add immeasurably to its interest.

On the whole, a most interesting and enlightening contribution to the literature of inflammatory intracranial lesions.

## Observations from the Lighthouse.

### Effect of Moving Pictures on Visual Acuity.

The conclusion of greatest general interest derived from the work of A. Ray Irvine and M. F. Weymann, on "The Effect of Visual Acuity of Viewing Motion Pictures" (J. A. M. A., 87:1123, Oct. 2, 1926) is that persons who suffer from eye-strain from motion pictures are those who are unable to accomplish other ocular work without fatigue. After some preliminary experimentation with various methods, the authors arrived at the conclusion that the change in visual acuity as measured by the Ives apparatus (used in the army air service tests) was the best index of retinal fatigue. The procedure was then as follows:

The group to be tested was assembled and the visual acuity read on the first subject, all having been given a number. Readings were made until 3 successive constant ones were obtained. In most instances these were the first 3; rarely were more than 5 trials necessary. The subject was then sent into the projection room and the picture begun. The rest of the group followed at  $\frac{1}{2}$  minute intervals. At the completion of the picture the subjects left in the same order in which they entered and immediate tests were made. For the reading tests the subjects were sent into a well lighted room (after the same preliminary examination) where they were required to read current magazines for a period of 45 minutes; after which the same tests were made. The length of time required to view a picture averaged  $1\frac{1}{2}$  hours; that used for the reading tests was only 45 minutes, this being the approximate maximum time that the subjects could read without discomfort.

In comparison of results 3 groups were considered; (a) 68 persons on whom the reading test and the test with a black and white picture were done; (b) 60 persons on whom the tests with a black and white and with a colored picture were done; (c) a miscellaneous group of 93 who saw the colored picture, and 153 who saw the black and white picture.

In the first group, 42.6% showed a fall in visual acuity after reading for 45 minutes; after viewing a black and white picture only 20.6% showed a fall.

In the second group 58.3% showed diminution after a black and white picture, and 48.3% after a colored picture. This would seem to indicate that the colored picture does not cause as much fatigue as the black and white, a conclusion borne out by the opinions of the subjects.

Of the 93 subjects in the third group who viewed a colored picture, 36.58% showed a fall in visual acuity, and of the 153 (different persons) who saw a black and white picture, 36.62% showed a fall in acuity, both of these percentages being less than the 42.6% recorded after the reading tests. The authors hope to continue these investigations.

### Deaf School Children.

Recent surveys indicate that more than 3 million school children in the United States have hearing defects. The detection and medical handling of these deafened children and the results of some extensive tests are discussed by Edmund Prince Fowler and Harvey Fletcher (J. A. M. A., 87:1877, Dec. 4, 1926), whose material consisted of complete surveys in 3 public schools

in New York City and one in Poughkeepsie. The method that finally proved successful was a combination of the group and individual test. Phonograph records of numbers were made by the new electrical process developed by the Bell Telephone Laboratories. In the process of recording, an attenuator was introduced into the electrical circuit in such a way that the intensity of each successive number was definitely 3 sensation units lower than the preceding one. An ordinary phonograph was set up in front of the class and the speech vibrations were taken off electrically, being transmitted by means of electric wires to a telephone receiver on each child's ear. After the telephone adjustment had been distributed and properly adjusted on the right ear of each child to be tested, the pupils were told that they would hear numbers called, first by a man and then by a woman, who seemed to be moving farther and farther away. The children were instructed to write, on the blank forms provided, as many of these numbers as they could hear. The receivers were then changed to the left ear and the test repeated.

With this apparatus, 75-150 children an hour could be tested, depending on the degree of efficiency in organizing the children and getting them to and from the class room provided for the tests.

It is difficult to say exactly how much loss of hearing indicates abnormality. A tentative figure of 9 sensation units or greater was used as a basis for determining those who could be classified as being deafened more than could be accounted for by normal variations. In terms of distance for hearing speech, this means that those who cannot hear speech until the speaker comes closer than two-fifths of the average maximum hearing distance are considered to have abnormal hearing. If this errs, it seems to the authors that it is on the conservative side.

On this basis, of the 4112 pupils tested, 595, or 14.4%, were classed as having deficient hearing; 3.2% had defects in both ears, and 11.3% in only one ear. In only one school did the authors follow up their findings with a careful otologic examination. Here, with the audiogram and brief history before him, the examiner completed about 20 cases an hour. Of the total 38 cases, diminished bone conduction was indicated in only 3 instances, and diminished high tone perception with the Galton whistle in only 4.

In handling the million school children in New York City, it appears to the authors that some such outline of procedure as the following will ultimately be advisable: Each school should have permanently a quiet room for the examination of the eye, ear, nose and throat. The newer schools are now provided with such a room. Each school should have access to a phonograph audiometer (Western Electric Company, number 4-A) equipped with 40 telephone receivers or the equivalent, and a tone range audiometer (W. E. C., number 2-A) or its equivalent. Preliminary testing should be followed the next day by retesting of borderline cases and careful otologic examination and diagnosis by a competent paid otologist, records being carefully kept. A note should be sent to each parent or guardian, stating that the child is slightly or moderately or markedly deafened in one or both ears; that he should be sent to a first class ear clinic or competent otologist to determine what can be done; that a seat near the front of the class room will be provided for the child. The latter statement will aid in impressing the fact that there is really something the matter with the

child. A check-up should be made to see whether the recommendation has been acted on, and a duplicate note sent to the parent or guardian if this has not been done. Records should be carefully filed so that changes may be noted and knowledge gained as to the detection of incipient cases and the progress of promising ones. This procedure should be carried out annually and special clinics should be established, probably as departments of our present hospitals, for studying and handling difficult cases.

#### Conserving Hearing of School Children.

It is conceded by otologists that 80% of all cases of impaired hearing can be prevented or arrested if discovered sufficiently early. One reason for our backwardness in combating deafness, as put forward by Horace Newhart (J. A. M. A., 87:1882, Dec. 4, 1926), lies in the fact that a person may suffer the loss of considerable hearing acuity without himself being aware of it. He also notes that the ear is extremely difficult to examine, and the detection and measuring of hearing loss by means of our older methods has been inaccurate, time consuming and quite impossible of execution in large groups on a reasonably economic basis. It is obvious, says the author, that the most favorable point of attack in meeting the large problem of deafness is during the school age. At this period we have more than 21 million future citizens for 9 months of the year, gathered under strict supervision as to their activities, with conditions most favorable for investigation and help with regard to their individual needs in connection with the safeguarding of their hearing.

Twenty of our states already have laws requiring the annual examination of the ears as well as the eyes of all children of school age. The possibility of making a practical and rapid examination with reasonable clinical accuracy of large groups of persons at low cost by means of the 4-A forty ear-phone phonograph audiometer of the Western Electric Company marks, in the opinion of Newhart, the beginning of a new era in otology. With this, or some similar instrument, the school physician or nurse can satisfactorily test the hearing of pupils at the rate of practically 100 an hour, provided the environment is fairly quiet and the work is organized.

During the past year, acting in the capacity of consulting otologist to the Minneapolis public schools, the author has gained some experience in supervision of the preliminary work of establishing a public school ear clinic. The procedure followed corresponded very closely with that recommended in the foregoing article by Fowler and Fletcher. For the pupils whose hearing has been shown by the preliminary tests to be more or less impaired, a diagnostic school clinic has been instituted. This is under the management of the general hospital but receives only school children as patients. The results of this examination are transmitted to the parents with the recommendation that the services of the family physician, or some specialist whom he may recommend, be sought for correction or treatment of the defect. It is believed that in many communities it will be advisable to provide treatment for those not financially able to command the specialized service which their condition demands.

The author believes that these hearing tests could be advantageously provided by all employers of labor, especially in the operating department of railroads; and that it is in order for the



medical profession to go on record as favoring the provision by our public school authorities of such examinations of the ears of all children of school age.

### Indications for Tonsillectomy in Children.

Indications for tonsillectomy in children, based on end-results, has been made the basis of a very comprehensive study by Albert D. Kaiser (J. A. M. A., 87:1012, Sept. 25, 1926). The complaints of 1200 children and the results found in these, 3 years after operation, were compared with the results in 1200 children with similar complaints who were not operated on. Conclusions derived as to the indications for tonsillectomy and adenoidectomy were as follows: (1) Mouth breathing is a definite indication for tonsil and adenoid removal. (2) Frequent attacks of sore throat and tonsillitis, (3) frequent head colds, and (4) chronic and recurring discharging ears are definite indications for tonsillectomy. (5) Persistent enlargement of the cervical glands, when no other cause is found, is a just cause. (6) Malnutrition, when other causes have been eliminated, will be improved somewhat, and therefore may be considered an indication. (7) Unexplained fevers, in the absence of other indications, may be a just cause for tonsillectomy, but there is no guarantee of a cure unless the fever is caused by an obscure tonsil infection. (8) For the prevention of respiratory infections, such as laryngitis, bronchitis and pneumonia, no positive indication exists, as the incidence of these infections was not influenced favorably or unfavorably by operation. (9) The prevention of diphtheria and scarlet fever may be considered an indication, as the incidence of these diseases was slightly less in the group operated on, and when they did occur, the sequels were less serious in the group operated on. (10) The presence of positive or suspected evidence of the rheumatic syndrome manifestations—rheumatism, chorea and heart disease—is a definite indication for tonsillectomy in view of the lessened incidence of heart disease in the group operated on.

## National Medical News.

### DISPOSITION OF THE SHEPPARD-TOWNER LAW.

The following news item from Washington appeared in the morning papers of January 14: An 8 day deadlock on the proposal to extend the Sheppard-Towner Maternity Act for a period of 2 years, was broken at the end of a 3 hour session of the Senate last night by passage of a compromise whereby the law is extended for 2 years but is automatically repealed at the end of that time—June 30, 1929. Previous to this agreement, the Senate had rejected a committee amendment which would have limited the extension period to 1 year.

Commenting upon the matter of federal meddling with maternity hygiene, the New York Times of Jan. 18, had the following to say editorially:

"In 1921 Congress was persuaded to pass the so-called Sheppard-Towner Act 'for the promotion of the welfare and hygiene of maternity and infancy and for other purposes.' Only by limiting the appropriations under it for five years could it have got through. It appropriat-

ed annually \$240,000 to be divided equally among the states at the rate of \$5000 a state, plus a sum proportionate to population. To get this bounty, paid in part by itself, the state had to appropriate an equal sum. Five states, Connecticut, Illinois, Kansas, Maine, Massachusetts, have never taken a cent of it. Now the Senate has accepted without roll-call an amendment continuing the appropriation for two years, but declaring that the Maternity Act shall be of no force and effect after June 30, 1929.

"This action was a compromise. Presumably it was the best that could be done. So we are to have two years more of Federal 'encouragement'. Its results seem to be invisible to the American Medical Association. Doubtless the members of that body are prejudiced. Only the sponsors of the law, largely lay sentimentalists, are capable of estimating its value. That any Congressman who gives even occasional lip-service to state rights could support this Federal subsidy and this Federal interposition in state legislation and taxation would be comical if there were not so few Democrats left not willing to leave their states as foundlings on Uncle Sam's doorstep; if there were not so few Congressmen of any party willing or able to resist the wheedlings or the threats of noisy minorities.

"Many lips will still open longingly for Uncle Sam's magic nursing bottle after 1929. The next or some other Congress may revive 'inspirational' work by a subsidy; and the Children's Bureau of laymen and laywomen will continue its beneficent activities though there be no Sheppard-Towner Act to enforce."

### SUPREME COURT DECISION ON MEDICINAL LIQUOR.

(Amer. Med. Asso. Bulletin, Dec., 1926, p. 218.)

In a majority opinion, delivered through Justice Brandeis, the United States Supreme Court has held that Congress has the power to decide how much liquor a physician can prescribe for a patient within any period of ten days' duration. The Volstead law and an act supplementary thereto make it illegal for a physician to prescribe more than one pint of liquor in ten days for any patient. By a vote of five to four, the Supreme Court upholds the constitutionality of these acts and thus establishes the power of Congress to determine what a trained physician may or may not do in the treatment of disease, no matter what he may honestly think of the value of liquor as a therapeutic agent.

In a minority opinion delivered by Justice Sutherland and concurred in by Justices McReynolds, Stone and Butler, it was contended that Congress did not have the constitutional power nor the right to limit physicians in prescribing what they believe to be best for their patients. The minority opinion holds that the power to regulate the practice of medicine resides in the states and not in the Congress.

The action of the Supreme Court has been widely commented on by the editors of newspapers in all parts of the country. Most of the editorials that have come under notice have been quite in line with the opinion of the minority of the Court. A part of an editorial in the Chicago Tribune is as follows:

#### Medicine and Prohibition.

Will the Supreme Court's decision on medicinal alcohol prove to be the Dred Scott case of prohibition?

It might well be. Certainly no conscientious physician in charge of a serious case will waive his judgment of the need of his patient because of the dictate of a legislature or the opinion of a bench of judges. The prescribing for the needs of the sick is not a proper function either of legislature or a court, and the law which attempts to put limits on the judgment of the physician is of a piece with the fanaticism which would determine any other scientific judgment by act of law. If a legislature directs that no public school shall teach that the earth is a sphere, if it directs that it shall teach that the earth is the center of the universe and that the sun moves above it from east to west, it would be no more out of its legitimate field than it is when it forbids a physician to prescribe more than an amount of alcohol which it fixes in its own wisdom.

The eighteenth amendment was in plain language directed at and limited to prohibiting the use of alcoholic intoxicants as beverages. The decision of a bare majority of the Supreme Court now extends the prohibition to their use for medical purposes.

That is the rock bottom of this decision. The reasoning of the majority cannot evade or obscure it. Under this decision a physician charged with care of a patient and honestly convinced that the patient requires an amount of alcohol beyond the limit fixed by a prohibitory statute must disobey his conscience and his scientific judgment or disobey the law. The theory of the decision seems to be that in order to prevent an abuse of medical authority the free judgment of responsible medical men may be properly circumscribed under a constitutional provision prohibiting alcoholic beverage. By such interpretation a constitutional provision can be explained indefinitely under the device of administrative measures, and the politician, the professional reformer, and the judge elbow the physician from the bedside of his patient.

Irrespective of the views that physicians may hold with respect to the therapeutic virtues of alcohol, it is altogether improbable that they will find themselves in agreement with the majority opinion of the Court, which, in effect, denies the physician the right to use what he may believe to be best for his patient if Congress believes otherwise.

Reputable physicians can take no other course than to obey and uphold the law. If it is wrong, its weaknesses and oppressions will be developed more quickly and more clearly by its observance. Then the corrections needed can be secured.

## Current Events.

### CONDENSED REPORT OF THE RECENT WORK OF THE WELFARE COMMITTEE.

In response to a call from the President of the State Medical Society, Dr. James S. Green, the newly appointed Welfare Committee held its organization meeting in Trenton, Sunday, October 24, 1926. Dr. Andrew F. McBride was unanimously reelected Chairman of the Committee.

The Executive Secretary read a report of his work, accompanied by plans for consideration of the committee, the following points being among the more important of those presented:

(1) Radio Talks. Tentative arrangements have been made, subject to your approval, for resumption of the weekly broadcasting of Health

Talks from Atlantic City by radio and coincident newspaper publication.

(2) Addresses to Lay Organizations. A new series of such addresses has been offered and bookings already cover all the available time to the end of this calendar year. Members of the committee and officers of the county societies have been asked to secure speaking engagements beyond that time. As related by Dr. McBride, in his last Annual Report, a "Primer on the Relationship of the Physician to the Public" has been prepared for publication in pamphlet form to be widely distributed as an educational document. You are requested to study this first draft of the "Primer" and determine what shall be done with it; making suggestions for its improvement, if you deem it at all worthy of publication, and deciding how and in what numbers it shall be distributed.

(3) County Society Meetings. We are asking every county society to give us an opportunity to exhibit our moving picture film setting forth the details of a complete physical examination; this being a portion of the propaganda for periodic health examinations; it is hoped that this film will enable us to more effectively present the general scheme to physicians, and we feel inclined to push this feature of our program even at the expense of some let-up, if necessary, in the public educational work because the public appears today to be far in advance of the profession on this question—demanding more than the profession is ready to supply.

(4) Postgraduate Study. The American Medical Association and several state medical societies have in recent years tried out different plans for encouraging postgraduate study by their members, without as yet having devised a perfect plan. Some of the methods employed have seemed to those who recognize the need for such study to be very attractive, and yet they have failed to meet the favorable reception hoped for.

During the past year the state societies of New York and Pennsylvania have experimented with new methods which seem to be yielding somewhat more promising results. The New York plan, devised by Dr. Gordon, was described by us in the June number of the Journal; and the Pennsylvania plan, originated by Dr. Meeker, Dean of the University, was presented in our report of the last Tristate Conference, in the September Journal. This society has no fund in sight to subsidize a replica of the Gordon plan, and it has no university backing to supply teachers as suggested by Dr. Meeker. We venture the proposition, however, that a compromise plan embracing some features of each of the others can be constructed and applied in New Jersey.

The plan we would propose hinges upon the formation of small groups of teachers, each of whom is qualified to speak upon some one phase or aspect of a given subject, and to have these groups agree to present lectures at times and places definitely determined to meet the requirements of county societies within easy traveling distance. For instance, the larger towns like Newark, Jersey City, Elizabeth, Trenton and Camden might be considered as teaching centers from which group work would radiate. Suppose an instruction seminar arranged for consideration of cardiovascular renal disease (this topic being suggested merely for a concrete example) and 6 or more specially qualified Camden physicians invited to prepare and deliver lectures upon different aspects of the ques-



tion; the anatomy and physiology of the cardiovascular and renal systems; the pathologic changes found in this disease; the etiology and symptomatology; diagnosis—with special reference to newer methods, blood pressure takings, the cardiogram, etc.; newer therapeutic investigations—use of liver extract, etc.; practical bedside therapy—as where the country doctor is called upon to meet emergencies and has not at hand the elaborate equipment of a modern hospital. In other words a series of lectures which constitute, in a sense, a symposium, but one which is constructed on a teaching basis rather than as usually prepared for presentation to a medical society; an arrangement which embraces all the scientific knowledge and covers the whole question but is made so simple that it will not be “over the head” of the least well informed physician deprived for a long time of the university atmosphere. Six, 8 or 10, of such lectures, of one hour duration each, would constitute the seminar and it should be possible to have them follow in logical sequence. It could be announced that during a specified period of time this course would be available, lecture No. 1 to be given on Mondays, No. 2 on Tuesdays, etc. Then, if Camden be taken as the center under consideration, the neighboring county societies of Camden—Gloucester, Burlington, Cumberland, Salem, etc.—could each arrange for a “Study Week” and during that week listen to one of these lectures (followed by questions and debate, if you choose) at say 5 o'clock each afternoon. If a week of daily lectures cannot be arranged we could make it once a week for a period of 6 or more weeks.

The plan is subject to many possible variations to meet circumstances but we believe the principle is practicable. It would not entail great hardship or expense upon anyone; each teacher would have to give but one lesson per week; the traveling expenses of the teachers is about all the expense the county society would have to meet, for we believe volunteer services of teachers can be had and the society can easily secure suitable school rooms.

Can teachers be found in this state that is without a medical school? Yes. Our “questionnaire”, enclosed in the October Journal was issued partly to secure an answer to that query. Up to date we have received 183 returns and of these, 98 express a willingness to teach and they represent all the important specialties. We know that there is an even greater amount of teaching material in this state than these returns indicate. If you deem the suggestion worthy of consideration, it can readily be tried out.

Coincident with promotion of this plan, which may be of more interest to the counties most remote from medical teaching centers, we would suggest adoption of the Kings County Society plan of weekly medical conferences, as applicable to certain of our large cities. At Brooklyn they have for 2 years conducted a special program of instruction on Friday afternoons at 5 p. m. and the attendance, we are told, has been quite remarkable. It would seem quite feasible to inaugurate a similar plan at Newark or Jersey City, or both, if we can interest the staff of one or more large hospitals. The institutions should and probably would, be very glad to further this scheme.

(5) State Legislation. We interpret the action of the House of Delegates to mean that we shall not attempt this year to amend the Medical

Practice Act, but that we shall be on the defensive against any adverse action by cultists.

Looking to improvement of the Medical Practice Act at some future time, this committee has previously endorsed the principles set forth in the so-called “Kelley Pamphlet” and has recommended a campaign of education to make these principles known to all practitioners and to build up support for such a law when it shall be proposed. We would suggest more or less constant use now of the Journal to propagate these plans. For one thing, we might reproduce the Kelley article by sections, accompanied by annotations, and follow up with other material culled from the reported experiences of other states in their attempts to regulate the practice of medicine.

(6) National Legislation. There are several matters relating to national legislation that ought to be called to your attention at this time:

(a) The Sheppard-Towner Act is still pending in Congress and we assume you wish us to continue to oppose its reenactment.

(b) The Smoot Bill, introduced in the last Senate, and the Green Bill (a duplicate of the former) presented to the House, and both due for consideration when Congress reassembles in December, would add new restrictions to the Harrison Narcotic Law and make that, if possible, a still greater abomination to the medical profession. We would ask you to consider the wisdom of opposing this legislation and the method by which your wishes shall be made known to our national legislators.

(c) One of our editorials succeeded in putting the New Jersey Medical Journal on the national map, for it has been widely disseminated by the press of the country; we refer to our expressed indignation at the dumping of 10,000 gallons of alcohol into New York Bay upon the order of a Federal Court. Senator Edwards presented the protest to General Lincoln C. Andrews and was told that there is no provision of law whereby seized alcohol can be distributed to medical institutions or otherwise saved from wanton waste. The Senator has given notice of intent to offer an amendment to prevent such waste and asks if the Medical Society of New Jersey is willing to formulate such an act for him.

(7) Tristate Conferences. The results of last year's meetings were so satisfactory, in the opinions of those who participated, that it was decided to make them a permanent feature and to hold 3 meetings per annum; one in November, to consider proposed topics; one in midwinter, to confer on pending legislation; and one in the Spring, to sum up progress. Following the custom of last year, the first will be held in Atlantic City in November, the second in New York and the third in Pennsylvania. It is desirable to obtain an accurate record of the proceedings, and it was suggested that each State Society might arrange to bear the expense of securing the record of its own meeting. We would respectfully suggest that, as the House of Delegates has already endorsed the general plan, this committee might request the Trustees to provide for this work—the whole expense probably entailing less than \$100 a year.

(8) Mecca College. At one of our meetings last winter we called upon the State Board of Medical Examiners for information as to what was being done in the Mecca College matter.

In a letter recently received from the Secretary of the Board it is reported that the case came to trial a few weeks ago and decision has

not yet been rendered, but whatever the trial court decides an appeal will probably be taken to a higher court.

(9) Woman's Auxiliary. Following up the action of the House of Delegates, the Secretary endeavored to help the Special Committee assigned to this work and desires to report that progress is being made. We were handicapped by the onset of summer weather and vacation periods and later many of the presidents of county societies hesitated to act because their official terms were expiring and they preferred to await action of the newly elected county officers. We are prepared now to assist Mrs. Barbash and her associates and hope to push these organization plans to a satisfactory conclusion in the near future.

(10) Automobile Insignia. You will recall Commissioner Dill's telegram to the Atlantic City session anent the use of a special insignia on cars, the favorable action taken thereon and the appeals made through the Journal for support of the request. The response to these appeals seems to have been meager. We gather from discussions at some county meetings that in some districts special local insignia have been in use for some time; that in some counties the A. M. A. device has been adopted and ordered in quantity. At Newark the question arose as to whether the Commissioner would insist upon his own or would recognize the A. M. A. emblem also. We suggested that the Essex County Committee confer with Mr. Dill inasmuch as he had shown an interest in this professional problem. Later, we took it upon ourself to visit the Commissioner's office and conferred with his deputy—explaining the problem confronting different groups of our members. (Mr. Dill's response, agreeing to recognize the A. M. A. insignia was published in the November Journal, p. 570.—Ed.)

All of which is respectfully submitted for your consideration,

HENRY O. REIK, M.D.,  
Executive Secretary."

Following the reading of this report, the Chairman announced that its several provisions would be considered seriatim in so far as action could be taken at this meeting, and requested the Secretary to have mimeographed copies of his report and of the proposed Primer sent to each member of the Welfare Committee for more deliberate study at home.

Sections 1, 2, 3 and 5 of the report were then in turn adopted and the Secretary instructed to continue his work along those lines. The plans outlined briefly in Section 4, requiring careful consideration, the Chairman requested members of the committee to express their opinions by letter to himself or to the Secretary after they had given this subject mature consideration. Concerning Section 6, Dr. Londrigan moved that the Secretary be instructed to write to members of Congress and the United States Senate, in the name of the State Medical Society, requesting them to oppose the passage of the Sheppard-Towner Act and the Smoot or Green Bills, now pending.

Dr. Warner moved that the Secretary be requested to confer with the other members of the Tristate Conference, with a view to securing like action against this legislation by the societies of the neighboring states of New York and Pennsylvania.

Dr. Londrigan accepted Dr. Warner's sugges-

tion as an amendment to his motion, and the amended motion was unanimously adopted.

Dr. Londrigan moved that the Secretary write to Senator Edwards approving the action he had taken regarding the disposition by the United States Government of confiscated alcohol and advising him that the Medical Society of New Jersey is opposed to the wanton destruction of property that might well be used by hospitals and other charitable institutions of the nation. He thought, also, that the Secretary might endeavor here to have the societies of New York and Pennsylvania take similar action.

After some discussion Dr. Londrigan's motion was adopted.

The Chairman: In section 7, the Secretary requests a recommendation to the Trustees that they appropriate a small sum of money to cover the expense of reporting the meetings of the Tristate Conference when held in this state.

Dr. Schaffler moved that the Trustees be asked for sufficient money to cover the expense of these meetings. The motion was seconded by Dr. Londrigan and unanimously adopted.

(Regarding the Mecca College affair, members will find a complete report to date in a letter from Dr. Kelley published in the January Journal.—Ed.)

Sections 9 and 10 of the Secretary's Report did not call for any action on the part of the committee.

The second regular meeting of the Welfare Committee was held at Trenton, Sunday, January 9, under the chairmanship of Dr. McBride, and with 25 members responding to roll call.

An abridged copy of the Executive Secretary's Report follows:

"Since our last meeting, the Secretary has continued the educational work previously undertaken and has appeared before 5 lay organizations and 5 county medical societies. He wishes to thank those members of this committee who were instrumental in bringing about engagements to speak in their districts, and to report that all these lay meetings resulted in apparently satisfactory attainment of our objective. The health examination film was exhibited before 3 county societies in December and 4 counties and 2 other local medical societies have engaged to witness it during January. An especially noteworthy meeting occurred when this film was exhibited before the Passaic Practitioner's Club, January 4, where an interesting general discussion was followed by 12 members ordering sets of examination blanks.

Another meeting of the Tristate Medical Conference was held in Atlantic City, December 4, and a full report of the proceedings will be found in the January issue of the Journal. The principle topic considered this time was the "Nurse Problem" and you will be interested in the published detailed discussion and the solution offered.

The conference acted upon our recommendation for combined state opposition to certain pending national legislation, and messages were sent to the proper officials.

Letters received from members of the committee indicate unanimous approval of the proposed Primer; some few verbal changes have been suggested and gladly accepted. The estimate of cost of its printing has been obtained and is submitted herewith:

If prepared in form of a 16 page pamphlet size 3 $\frac{3}{4}$  x 9 in.—corresponding in size to a single column of our Journal—without cover, the price



will be \$60 for 5000 copies; with cover, \$88. Additional copies at the rate of \$10 per 1000 without cover, or \$15 with cover.

If prepared in form of a 16 page pamphlet size 3 x 6 in.—size of regulation business envelope—the price will be: without cover, \$68 for 5000; and with cover, \$90 for 5000. Each additional 1000 to cost \$12 without, or \$16 with cover.

**Chiropody.** The chiropodists recently sent representatives to call upon Dr. McBride with a request for coöperation of the State Society in an effort to secure legislation defining the term, "chiropody". We believe these representatives are honestly striving to coöperate in the matter of amending their existing law, and respectfully suggest the appointment of a small sub-committee authorized to negotiate with them in this matter.

**Postgraduate Study.** Section 4 of the Report, dealing with "Postgraduate Study", has brought forth some diversity of opinion. That portion which recommended an effort to establish lecture courses at some of the larger city hospitals, by staff members and open to all members of nearby county medical societies, met with general approval. Anticipating that vote, we did not await the actual receipt of your ballots but discussed with superintendents of some of our institutions the desirability of establishing the Kings County plan. At the moment we are able to report only 1 positive acceptance of the plan but we hope for early favorable replies from several others. Dr. O'Hanlon, of the Jersey City Hospital, has promised to inaugurate such a course of weekly lectures at that institution before the end of this month.

The other plan—lecture seminars arranged among our own members residing in the larger cities and serving the county societies in their vicinities—evidently requires more consideration than could be given to the subject in the manner it was presented. You will remember that the Secretary was by no means enthusiastic about the demands for postgraduate instruction, but he did believe that the proposed scheme has possibilities. Apparently, some of our members doubt this, some doubt the advisability of doing anything in the nature of postgraduate work and quite a number feel that further study of the problem should be made before any action is taken. We quite agree with this last opinion and would suggest, here also, the appointment of a small sub-committee to study the question from its various angles. We will be glad to tabulate for such a committee the replies received in response to our questionnaire, indicating, as these replies do, the different specialties practiced, the number of specialists among our members in each city, the number of possible teachers we have at command, and will submit several letters expressing active interest in the plan that was merely hinted at in that communication.

**Expert Testimony.** Thinking that this committee might wish to continue its work with reference to securing new legislation governing presentation of expert testimony in our courts, the Secretary has secured a copy of the Special Report of the Cleveland Bar Association, on this matter, which was approved by the National Bar Association at its last annual meeting, and has that report for presentation to your sub-committee if it is desired.

**Public Health Matters.** Through negotiation with the Director of Public Health, Dr. Costill, and the Chairman of our State Society Commit-

tee on Public Hygiene and Sanitation, Dr. Gordon K. Dickinson, we have arranged for a statewide campaign for the elimination of diphtheria; our part being to disseminate information to the profession through the Journal and to urge the county societies to participate in the work. Similar campaigns are being conducted in our neighboring states, notably in New York and already with marked success in some portions of that state, and we trust you will endorse the action we have already taken and authorize its further promotion. In this same connection, may we report that we have tendered our support to the State Board of Health in its efforts to secure legislation for the control of rabies. During the course of the past year, we happened to collect a considerable number of newspaper clippings bearing upon this question and it occurred to us that it might be effective to arrange these into a symposium, with suitable introductory remarks, for mimeographing or printing and distribution to members of the Legislature in advance of its meeting. We have submitted the material to Dr. Costill for his approval and request your authorization to proceed with the plan. This matter can be mimeographed in our own office and sent out without any charge to the committee's account other than the postage. It would certainly be much more effective, however, if printed and we believe this could be done at an expense of not more than \$25.

**Libraries and Newspapers.** Inasmuch as our Journal carries considerable material that we would like to get before the public, we would request you to consider the advisability of distributing a certain number of copies monthly, let us say 50, to the prominent public libraries and more important newspapers of the state; inviting the libraries to place the Journal so that it would be available to the general readers, and calling the attention of newspapers to marked articles or news items. We understand that some such provision was made at one time by the State Society but apparently the plan is not now in operation. If the suggestion meets with your approval we will submit the request to the Publication Committee.

**Chiropractors.** The January Journal contains a letter from the Secretary of the State Board of Medical Examiners reviewing the history of legal action against Mecca College and recording the present status of that case. A more amusing incident has recently developed in the affairs of that cult. Emulating the world renowned British College of Surgeons—and seemingly ignoring existence of the more recently organized American offshoot—the chiropractors have secured a charter, issued in Washington, D. C., to the "American College of Chiropractors" and the newly organized body has established headquarters at the Waldorf Astoria Hotel, New York City. It appears from recently issued literature that the charter was obtained as long ago as September 24, 1924, and the first convocation was held at 6 East 12th Street, New York City, on January 1, 1926. In the words of a letter from the Trustees of the College, "nothing in chiropractic organization has ever fired the imagination of the whole profession as did the first announcement of the plans of the American College of Chiropractors". It is further stated in this letter that "the College does not solicit membership but all practitioners are extended the privilege of making application as defined in the Constitution of the College"; and then, said Constitution makes it patent that any chiropractor may be admitted to fellowship upon payment of

a \$50 initiation fee, and that payment of \$500 to the Endowment Fund will exempt him from annual dues, which are set at \$10 per annum.

Strenuously denying that their "College" is an imitation of any existing organization, their literature and proceedings nevertheless confirm the suspicion that they have tried in every way to copy the American College of Surgeons: The declaration of principles, form of organization, adoption of academic robe, and use of the title, F. A. C. C., are very evident adaptations. "The gown adopted consists of a body of black moiré. A scarlet velvet facing, 5 in. wide, extends around the neck and down each side of the front. The cap is of the same material as the gown, with a scarlet tassel."

In one point they have excelled their prototype: "The Board of Trustees of the College have adopted a unique design for the Fellowship insignia or emblem. The design consists of 2 hands crossed, about to give adjustment. Mounted on the forearms of the hands are a pair of spread wings which denote speed and the ever-soaring of our profession upward. Through the medial line of this design is the torch of light which is to acquaint the world with the progress of chiropractic and the Fellowship of chiropractors."

One of the speakers at the convocation grandiloquently proclaimed that those attending had been "selected from a group of over 30,000 chiropractors as preëminently fitted to become Fellows of an organization which, if properly conducted, will become a power on this continent that will redound to the glory of its founders for centuries". And, he added, "I want this to be a great institution, and you have the power, by your moral influence, to build up a super-college; you have the College of Surgeons of England as an example. But you are going to do something more. You are going to add to chiropractic research. You are going to do something with regard to reference libraries, with regard to being able to consult the most skilled practitioners and their works".

So much for the humor of this situation. When one searches for the real object of all this bombast, he finds hidden away in paragraphs "g" and "h" of the stated objects of the college, the following significant phrases:

(1) "To secure the enactment of just chiropractic laws by the state and federal governments and of a federal law providing for a national chiropractic license". (2) "To attain the establishment of a national chiropractic board of health."

Another object set forth, but which is not quite clear to the reader, is expressed as follows: "To seek the means of legalizing under national, colonial, state, or provincial laws, a distinct degree supplementing the chiropractic degree, which shall be conferred upon chiropractors possessing the requirements recognized by the College as necessary to be possessed by the chiropractor".

We submit all this as evidence that more trouble may be expected to emanate from the chirois in the near future, and ask you to consider what action, if any, is called for at the present time. We made inquiry of the American Medical Association's Secretary as to whether any notice had been taken of this "College" and were informed that he had not previously heard of it.

Visual Tests for Motor Vehicle Drivers. On December 9 and 10, the daily papers contained a special news item from Passaic, which reads as follows:

"Applicants for drivers' license after February 1 will be subject to an eye examination before permission to drive is granted. Announcement was made to that effect by Motor Vehicle Commissioner William L. Dill today here. The commissioner said he already has the assurance of 108 optometrists in the state that they will serve on the board of examiners without compensation. This move to insure further safety in automobile traffic is the first of its kind introduced in the country.

Commissioner Dill said he first discussed the matter in an address before the State Society of Optometrists last year, and that the idea was furthered by the society's committee. Dr. Hugo Berman, of Jersey City, a member of the optometrists' state board, appeared before the commissioner this morning and made the findings of the committee known. Dr. Berman said that the board of examiners will be ready after the first of the year, but it was later decided to postpone the start of the examinations a month.

Included in the eye examination will be a strict color test to determine whether candidates can see colors of the signal light systems. The test will also include distant chart reading.

It was explained by Mr. Dill that candidates may be examined by their personal optometrist if they do desire. Before obtaining a license they must produce a certificate showing they have passed the test, details of which will be revealed later.

The commissioner gave out a list of cities where the examinations will be held. Newark is included, and the other cities are Passaic, Paterson, Summit, Trenton, Dover, Elizabeth, Englewood, Hackettstown, Jersey City, Red Bank, New Brunswick, Morristown, Newton, Perth Amboy, Ridgewood and Plainfield."

Dr. E. S. Sherman wrote to Dr. McBride on December 16, asking if this might be brought before the Welfare Committee for action and stating that he had, on December 13, laid the matter before the Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey, and that a committee of 1 had been appointed to visit Commissioner Dill.

Naturally, our first reaction to this announcement from the Commissioner of Motor Vehicles is one of disappointment that he should have allowed himself to be so thoroughly taken in by a group of business seeking optometrists. But then promptly comes the thought, is not this an opportune moment for the State Medical Society to do something toward the saving of life through diminution of the number of accidents and deaths annually resulting from the custom of issuing licenses to persons utterly unfit to drive an automobile? We all know persons so licensed whose vision is so poor that they cannot see distinctly 500 feet in front of the car, who are so deaf they cannot hear the approach of or even the claxon signals of another car, and who are absolutely color blind to the light signals. It stands to reason that such drivers are unsafe, and yet we never hear of any investigation of the vision or hearing or mental state (save as regards drunkenness) of the driver responsible for an accident or death. Those of you who remember the awful state of affairs on our steam railways before engineers were compelled to



submit to sight, hearing and color vision tests, will recognize a parallel condition.

Some 5 years ago, your Secretary, while working for the American Institute of Medicine, undertook a private investigation of the causes of automobile accidents, being impressed with the notion that many of them must be the result of defective vision or hearing and intending to prepare a paper for one of the societies of specialists interested in such matters. He was surprised to find that nowhere in this country was any attention paid to the physical condition of the applicant for a driver's license. Age might be considered an exception to that statement, because some state laws provided that the applicant must be over 17 or 18 years of age, but that was a ridiculous provision as it stood, because it denied license to young and healthy individuals and granted it to old and decrepit persons. The present law in this state actually says "that no physical defect of the applicant shall debar him or her from receiving a license unless it can be shown by common experience that such defect incapacitates him or her from safely operating a motor vehicle". The same Act does provide, however, that the Commissioner may "in his discretion", refuse to grant a license to any person who shall "in the estimation of said commissioner, be an improper person to be granted such a license". While his discretion is hampered by the proviso already quoted above, it is possible that he may possess the power to establish rules that will have an effective working value. His recent announcement would seem to indicate an inclination in that direction and it is worth considering whether we can induce him to take a step further and place New Jersey in the forefront of progressive states by setting up a high standard of safety in control of drivers' licenses.

The Ophthalmology Section of the American Medical Association has given considerable attention to this problem, and in 1924 gave out a series of recommendations covering physical examinations other than those concerned with visual acuity. Pennsylvania is the only one of our states with a mandatory provision that "no license shall be issued to any person who is physically incapacitated". Even in that state, however, physical incapacity is limited in the legal definition to "any person who has lost the use of one hand or both, or who has lost use of both feet, or whose eyesight is so impaired that with the aid of glasses he cannot distinguish substantial objects clearly at a distance of 100 ft., or shall have less than 20% of normal vision, or shall have less than 2% of normal hearing". Three other states provide legally for some consideration of the eyesight of applicants for licenses to operate: Delaware requires "ability to read ordinary road signs", and "to speak and understand the English language"—evidently a test of literacy and not of vision; Oregon requires that "those persons whose vision is greatly impaired" shall be rejected, but does not define such impairment; Minnesota applies a visual test to "chauffeurs of motor vehicles for hire", and the examination of such applicants is made for the Board of Automobile Examiners by an optician of St. Paul who donates his services.

The New Jersey Commissioner, in a letter dated March 19, 1924, explaining his own plan in the absence of specific legal requirement, said: "In our opinion, any applicant for driver's license who is unable to discover objects at no greater distance than 350 ft. ought not to be licensed to operate a motor vehicle". One can

readily see how useless such an inaccurate road test must be.

While congestion of automobile traffic and accidents arising therefrom do not constitute as serious a problem in other countries as in the United States, where it is said we find 75% of all the automobiles, passenger and freight, in world, still the question of license requirements has been studied in some foreign countries and the following recommendations coming from Holland are the most complete we have seen.

The special committee studying the qualifications for driving an automobile, reports: "At the outset, 2 divergent opinions arose. Some wished to place all chauffeurs on the same footing. Others contended that it would be well to distinguish 2 classes: (1) public chauffeurs (taxicabs, autobusses, etc.), and (2) private chauffeurs. It seemed desirable to place the requirements for public chauffeurs somewhat higher than for private chauffeurs. The following seems to be regarded as an irreducible minimum: (1) an age requirement of 18 or 19; (2) absence of all diseases, physical or mental, that might suddenly incapacitate a person to drive an automobile; (3) adequate functioning of all 4 limbs; (4) visual acuity of 50/100 in each eye without correction, stereoscopic vision adequate for the judging of distances, a normal visual field, satisfactory color vision, absence of day or night blindness; (5) normal functioning of the heart, lungs and nerves; (6) auditory acuity representing an audition equal to hearing a whisper at a distance of 5 meters for one ear and at a distance of 50 cm. for the other ear.

The applicant for a license should be required to affirm in writing that he has not withheld from the examiner information in regard to any disease. The anamnesis should discover especially existing alcoholism, epilepsy and psychic diseases.

Cardiac arrhythmias should not necessarily disqualify the applicant. On the other hand, advanced arteriosclerosis is incompatible with the responsibilities of the chauffeur. Examination of the lacrimal ducts is rather important, as watering of the eyes is, in a sense, a disqualification. A study of the reflexes, the power of attention and psychomotor reactions is recommended."

Our suggestion would be that in conferring with Mr. Dill regarding his recent pronouncement, we take advantage of the opportunity to focus his attention upon the broader field of physical defects as a bar to safe management of an automobile and endeavor to induce him to inaugurate a new and complete set of rules controlling the issuance of drivers' licenses. To that end we would suggest the appointment of a special sub-committee to formulate a set of rules for presentation to the commissioner, and authorized to use every effort to induce him to put such rules into effect, or to aid him in securing legislation that may be necessary to bring about the end desired.

All of which is respectfully submitted by

HENRY O. REIK, M.D.,

Secretary.

The Secretary's Report was duly received with the suggestion that each item be considered separately.

Considering first the proposed "Primer", it was moved by Dr. Donohoe that the Primer be adopted for publication in the shape of the smaller size pamphlet, with cover, and that 5000

copies be printed as the first order. This motion was seconded and adopted.

After some discussion as to the best methods of distributing these pamphlets, Dr. Schaufler suggested that the manner of distribution be left to the Secretary, who might consult freely with members and report later to the Welfare Committee, if necessary.

Regarding the proposal to confer with representatives of the chiropodists, Dr. D. L. Haggerty moved that a sub-committee of 3 be appointed for this purpose, with authority to act for the Welfare Committee. Upon adoption of this motion, the Chair appointed Drs. Green, Donohoe and Morrison, requesting Dr. Kelley to work in association with those named. Dr. Kelley endorsed the general proposition and promised to assist on behalf of the Board of Examiners.

Concerning the plans proposed for postgraduate work, Dr. Londrigan moved the appointment of a sub-committee of 3 to deal with this question and upon adoption of the motion, the Chair appointed Drs. Schaufler, Hunter and Lippincott.

The chairmen of the sub-committees on "Expert Testimony", and "Juvenile Delinquency", not being present, it was decided to leave these matters for consideration at some later date.

With reference to that portion of the report dealing with public health matters, Dr. Schaufler moved endorsement of the antidiphtheria campaign, and Dr. Lippincott moved to authorize the Secretary to have the antirabies matter printed and distributed to members of the Legislature. Both motions were adopted unanimously. Dr. Lippincott suggested the printing of a sufficient number of copies of the rabies matter to permit distribution to the larger municipal authorities and local health boards, and Dr. Schaufler suggested sending copies to members of the Welfare Committee for distribution in their districts.

The recommendation that copies of the State Society Journal be supplied to a selected list of libraries and newspapers was amended by a suggestion from Dr. Lippincott to include a selected list of hospitals, and the Secretary was authorized to lay this request before the Publication Committee.

Discussing the reported action of the national body of chiropractors, Dr. Hunter moved that the Welfare Committee record its disapproval and that it should be on guard and prepared to take such action as may be necessary if the chiropractors attempt to procure legislation in line with the suggestions contained in their publications. The motion was adopted.

Speaking upon the subject of "Visual Tests for Motor Vehicle Drivers", Dr. Sherman expressed approval of the Secretary's Report, with special reference to taking a broader view of the whole subject of motor vehicle safety rather than limiting proposed action to the consideration of visual tests alone. He called attention to recommendations of the American Medical Association and recommended the appointment of a special committee to consider and act upon this question.

Dr. Pinneo stated that the newspaper item announcing Commissioner Dill's speech had occasioned considerable excitement in Essex County and that he had just received a telephone message announcing that a certain group of physicians were going to communicate with Commissioner Dill concerning the commercial

aspect of his negotiations with the optometrists. He thought the committee should at once oppose and resent the action taken by Mr. Dill.

Dr. McBride stated that he had personally conferred with Commissioner Dill regarding this public announcement and had learned that the Commissioner had no desire whatever to infringe upon the rights of physicians and had only desired to protect the public from avoidable accidents, and this was the first and only practical suggestion that had come to him concerning avoidance of accidents due to visual defects. The Commissioner promised to withhold action until the Welfare Committee might communicate with him. The Chairman further stated that he would consider Dr. Sherman's recommendation of the Secretary's Report as a motion to appoint a sub-committee to study the question thoroughly and to confer with Mr. Dill as to our attitude toward the entire question of examinations for physical defects.

Dr. Sherman accepted this interpretation of his motion and the latter was duly adopted. The Chairman then appointed for this committee Drs. Sherman, Lathrope and John F. Haggerty.

Dr. Green suggested that Dr. McBride should also serve on this sub-committee and the Chairman agreed to associate himself with the committee in carrying out this project.

Dr. McBride thanked the members of the Welfare Committee for responding in such large numbers to the call for this meeting and for the expeditious manner in which they had worked, and requested that every member hold himself in readiness to respond to any call that might come from himself or the Secretary during the coming session of the General Assembly.

The meeting then adjourned.

HENRY O. REIK, M.D.,

Secretary.

## Communications.

### A VISIT TO ST. BARTHOLOMEW'S HOSPITAL IN THE CITY OF LONDON.

(Letter from John Hammond Bradshaw, M. D., F. A. C. S., Orange, N. J. )

Henry I, son of The Conqueror, was King of England. Thomas à Becket was 4 years old. London was surrounded by great walls. The Magna Charta was a thing of the future. It was of an age when pilgrimages were made to Rome. Rahere, a Canon of St. Austin, was stricken with a dysentery while making this journey with other pilgrims. Near unto death, he made a vow to St. Bartholomew that if he ever recovered he would build to God a hospital in the City of London and call it "St. Bartholomew's Spytill". The year was 1123. We must remember that date, for in that year was brought forth the first hospital of the whole world, as we know it!

Through a fortunate acquaintance with one of the present Governors of the hospital, one who is well known as a high officer in the Royal Navy, I was given a note of introduction to Dean Shore, who received me with true British courtesy and not only gave me the entrée to the establishment, but put in my way means of acquiring some interesting historical data.

It is hard to realize the historical impression of this "God's acre" of earth. Here Harvey discovered the circulation of the blood. Here



the Black Death and the Sweating Sickness at times filled the wards with a fast dying nation. From the windows of this hospital one looked out and almost overhung the smoke and the fires of Smithfield where the English martyrs, bound with chains to their stakes, died writhing in agony, attesting undying devotion to their religion and to their God. It has always been a hospital and was never a gaol or an almshouse. Beginning with a half-score of beds, 8 centuries ago, last year 482,262 patients received benefit within its walls.

As in 1183 its "privileges" had been blessed by Pope Lucius III, at the Reformation, St. Bartholomew's, being therefore, considered a papist institution, was with other catholic institutions, almost wiped off the map. It will always redound to the glory of King Henry VIII that he at the time of its greatest stress reached out the hand of royal favor and (1544) saved for England this beneficent institution. A grateful posterity has rewarded the good deed by local effigy and a life-size painting of this King standing in all his robes of magnificence at the far end of the Great Hall of the Hospital, which portrait still preserves the wonderful coloring and technic of the artist Holbein.

Queen Elizabeth herself took a personal interest in this institution, and, like the good Queens of the present day; would visit and touch and speak to the patients and with great erudition she even read, in different languages, to the sufferers lying in their beds. Moreover, she took an active part in the superintendence of the Hospital. One of the surgeons of St. Bartholomew's was Fleet Surgeon in the English Squadron that defeated the Spanish Armada. Wat Tyler's name is linked with the Hospital, for his insurrection occurred at its very doors. He was grievously wounded in the head and, covered with blood, he was put in one of its beds, from which he was soon roughly dragged and, although weak and unable to stand, he was cruelly forced on his knees and his bleeding head was chopped off then and there on the block. Thomas à Becket was one of its Governors at one time; also William Longespée, one of the witnesses of Magna Charta. Thus we are impressed with the antiquity of "Barts".

With such an historical background, let us not forget the physicians and surgeons who have not only made "Barts" famous, but who were part of that great constellation of medical stars without whose illumination present day medicine would still be groping in darkness. Harvey was appointed physician to the hospital October 14, 1609, and held his office for 34 years. Probably one of the first Museums for Anatomical and Chirurgical Preparations was founded by the surgeon, John Fecke, who was also surgeon to Queen Anne. John Hunter walked these wards with his quiet smile and gentle touch. His preceptor, Percival Pott, whose name will survive as long as surgery endures, was also there. It was David Pitcairn who in "Barts" pointed out the relation of cardiac disease to rheumatism, till then unobserved. John Abernethy, "probably the greatest lecturer the arts of healing have ever known," instructed here and did much to extend the fine library of the institution. It is said that Abernethy lost a royal appointment by refusing to attend George IV till his lecture was finished. Hogarth served "Barts" as one of its Governors and painted two large frescoes, the "Pool of Bethesda" and the "Good Samaritan", which adorn today the great staircase. Other celebrated names are Sir James Paget

(whose portrait, painted by Millais, hangs in the Great Hall); Luther Holden also stands today before us, painted by the same famous artist; Sir Thomas Smith, Sir Anthony Bowlby, James Andrews, John Painter Vincent, George Barrows, and Sir William Savoy, were names to conjure with in the realm of medical and chirurgical legerdemain.

At St. Bartholomew's Hospital one sees today under a stair, a huge stone Roman sarcophagus, several tons in weight, which was found deep in the earth while digging the foundation for the hospital. Here in the Museum can be seen the personal surgical tools of those famous English surgeons who, centuries ago, have passed to the silent land where the surgeons cease from troubling and the sufferer is at rest. Here are those cautery irons which when heated red hot were plunged into the bleeding wounds of the only too conscious and screaming patient to stop his hemorrhage. Anatomic specimens are here wonderfully preserved after hundreds of years!

The Registrar personally conducted me, not as a Cook's tourist but as a worshipping pilgrim. It was here that the poet Shelley took his one year in medicine and here Charles Lamb, Coleridge and Wordsworth, and others of famous English names went to school in "Christ's Hospital". Always it has been a wonder to me why a boys' boarding school was here entrenched and why it bore the appellation of "Christ's Hospital". "Christ's Hospital" still stands, one of the oldest buildings of the group, in fact the very oldest. But it is soon to come down to make way for a modern building (not a skyscraper, for London limits by law the height of its buildings to seven stories). It is used at present as a "dorm" for the residents. It must be interesting to sleep under the identical rafters that once covered Coleridge and Wordsworth!

In the Great Hall, Luke Fildes' famous portrait of Edward VII faces the portrait of Henry VIII. I amused myself by speculating whether, if some artist would only exchange their robes and background, it would be difficult to tell them apart. But comparisons are—

While "Barts" has a wonderful past, she has a wonderful present. Here are almost a score of modern operating rooms, and almost 1000 beds, all the modern and advanced ideas—the living animals for experimentation, the Finsen Light for the cure of lupus and other skin affections. Here are rows and rows of microscope workers, while the X-ray Department and Research Rooms would take more than another letter to describe. In conservative England, "Barts" has ever stood for progress. Its great Medical School is said to lead all others in the United Kingdom.

Just one word more to show how, even in the past, advanced ideas prevailed. Just 17 days after Sir James Young Simpson discovered or first used chloroform (1847), the drug was bought and used in "Barts". Before I turned my back, perhaps forever, on this great hospital. I stepped into "St. Bartholomew's the Great", the wonderful Gothic Church built here over 8 centuries ago. This is the oldest standing church in all England! Here repose the ashes of Rahere, who founded St. Bartholomew's Hospital. It was fitting that my last look should be upon the placid sculptured features of one who, with his own hands built this, the world's first Hôtel d'Dieu!

Note. It may add interest to state that I made the final transcript of these few notes sitting at the identical desk, in the identical inn situated between the Strand and Adelphi Terrace, London, where Charles Dickens wrote the greater part of *Pickwick Papers*.

### "A VISIT TO BELLEVUE HOSPITAL."

(A complimentary letter to the author of the above article, by George A. Van Wagenen, M.D., St. Petersburg, Florida.)

My dear Dr. Bradshaw:

Printed copy of your "letter" on a visit to Bellevue Hospital, which was forwarded to me here, gave me great pleasure by awakening memories of that portion of my medical life, with its friendships, acquaintances, and environment, which are the most delightful I have. They are covered by the years 1868 to 1873, and include the days of medical college, '68 to '71, and of intern at Bellevue Hospital, 1871 to 1873. The early days of one's professional life are usually the most vividly enthusiastic, perhaps because he has not yet learned the limitations and difficulties of his chosen work, as well as the unwillingness of the world to accept anything new, especially from a young practitioner.

The ancient history of Bellevue was interesting, and some of it new to me, but the long list of noble names connected with its medical service was doubly interesting as the 2 years of my intern service brought me into intimate acquaintance with these men. In speaking of these men a few years ago, the old curator and clerk of College of Physicians and Surgeons said: "Dr. Van Wagenen, there were giants in those days". I could endorse his estimate!

Your letter tells of the wonderful improvement in buildings and service but I doubt whether anyone could have done better work than these older physicians and surgeons did under the adverse conditions under which they labored. The buildings were old and poor, badly equipped, crowded to overflowing, managed by political grafters, whose ideals were as far from those of the medical staff as the poles are from the Equator. The day of aseptic surgery, or even surgical cleanliness had not dawned; the wards were the breeding place of every septic infection; and so-called nursing was done by a corps of "orderlies and nurses" recruited from convalescents and political nominees. Cases of erysipelas and puerperal fever were freely admitted to surgical wards because there was no other place for them. The work of Lister was just announced and immediately adopted so that every dressing swam in carbolic acid and oil; but Pasteur's magnificent discoveries were yet to come, and the aseptic work based on them was unknown.

I remember T. Gailord Thomas telling me with pride his mortality in operations for abdominal section (only done at that date in the last stages of ovarian tumor) was only 80%. Nearly half of the amputation cases died of pyemia and practically all showed some sign of erysipelas. Neither "giants" nor magicians could save life under such handicaps.

Your letter and the names you mention recall the fact that Henry B. Sand was my preceptor and that both McBurney and Bull were students with me under the same master. As members of "the professor's quiz" which met every evening at the home of the different professors by exchange, we had the advantage of an intimate personal acquaintance of all these splendid men, and later, on the intern service of Bellevue, where McBurney was just ahead of me, and Bull's service ended 6 months after mine, we made the personal acquaintance of our visiting surgeons and physicians. Sands, Sayre, Hamilton, Mott, Goulay, and Stephen Smith were

my "visitings" and James R. Wood belonged to us all! The beloved Janeway was another friend.

I thank you for calling all this back to me!

### "SEMI-PROFESSIONAL READING".

(A letter from one of our distinguished lovers of the "Classics"—John H. Moore, M. D., Bridgeton, N. J.)

Dear Dr. Reik:

Your article entitled "Semi-professional Reading" in the December number of the Journal was most interesting and timely as well. The necessity of a recreational outlet for the busy physician is so apparent as to need no argument and for many this outlet may be found in literature, especially that phase of literature which is correlated in some way with that of medicine. Such a book is the last volume of Dr. Collins to which you refer in your article. Personally, I have read his other two volumes with almost equal interest, though they probably have not the same interest for the physician.

Two other books occur to me as being especially suitable for a physician's reading, though they are long out of date and probably little known to most practitioners of the present day. I refer to the two volumes by Dr. Oliver Wendell Holmes entitled respectively, "Medical Essays" and "Pages from an Old Volume of Life". The genial autocrat is better known by his Breakfast Table Series, but his contributions to medical literature are no less interesting and important, sharing, as he did, equal honors with Semelweis in discovering the contagious nature of puerperal fever. I have thought that possibly a short sketch of Sir Henry Holland, an eminent London physician of the 19th century, might be interesting. His literary fame, like that of Dr. Holmes, eclipsed somewhat his celebrity as a physician, though as the latter, he was one of the most distinguished Consultants of his day. One of his books entitled "Medical Notes and Reflections" is well worthy of perusal while his "Recollections of a Past Life", to which I am indebted for most of the facts of this article, is one of the most interesting of biographies. He was also one of the most traveled men of his day as well as the Nestor of his profession.

Early in his professional life, being free from pecuniary cares (he says, naively, that he had resolved to restrict his practice to £5000 a year), he decided to devote 2 months of each year to travel. This resolution he carried out successfully for over 50 years, during which time he never lost a day from illness, except for a few weeks following a severe surgical operation. He made 8 visits to the United States, and in his explorations covered almost every portion of the known world.

Another resolution, almost antipodal in character, is noteworthy. He resolved to devote a portion of 3 days in each week to the study of Greek and Latin writers, and never let the day pass without such study, even though but 10 minutes could be kept from other business, believing that such sudden change of employment is made easy by habit and often indeed refreshing to the mind. He states that in carrying Latin and Greek books with him in his carriage he "found no difficulty in passing from the sorrows of Iphigenia and Dido to the ailments and complaints of a sick room in Grosvenor Square".

Though he expressly states that he had never



"made a tolerable set of Latin verses" and that his classical education was a very imperfect one, it seems to have done for him what it probably did for very few students of his day—it carried him forward into private study of Greek and Latin writers. The amount and range of his classical reading were marvelous. In one place he speaks of having finished his third reading of the *Odyssey* under "feelings of augmented pleasure" and of passing on to the very dissimilar reading of the *Wasps* of Aristophanes "with less pleasure, indeed, but with much amusement in seeking to unravel the whimsical web of Athenian social life, so unlike and yet so like that of our own day".

Among the less known writers whose works he read he mentions the later Latin poets and historians and some of the Byzantine writers of even later date. He ascribes much of the pleasure which he derived from his Greek and Latin reading to the absence in him of anything like "nice or critical scholarship". If this explanation be true, it may serve to encourage some of us who read our Latin and Greek as the Scotchman jokes, "with difficulty". He speaks also of the pleasure he derived from reading 2 poems on the dog, the *Cynegetica* of Grattius and of Memesianus; "the character of the dog", he adds, "has undergone less change than that of the human master to whom he is so strangely attached". He expresses surprise at finding that there were "men of high reputed scholarship who have never looked into the physical writings of Aristotle nor into what remains of the great astronomical poem of Aratus quoted by St. Paul and translated by Cicero in his youth, nor into the writings of Isaeus, the great property lawyer of antiquity". He laments the decay of classical scholarship and declares that the "classical scholar is less highly regarded than formerly". One cannot help wondering what his feelings would be today if he were living and could see present-day conditions of classical study.

Among the many eminent men of his day with whom he was on intimate terms were Gladstone, Grote, Macaulay, Milman, Mure and Hawtrey. He seems to have had also among his acquaintances Hookham Frere, the translator of Aristophanes (who was in the habit of sending him proof-sheets of his translations as they issued fresh from the press), as well as the famous scholar, Payne Knight, whose house in Soho Square gave the locality a reputation for "classical learning, art, and luxury". There, too, were given those dinners so characteristic of the "consummate scholar, sensualist, and sceptic", as Sir Henry calls him, while at the same time he declares that the prolegomena to Knight's edition of Homer was the most beautiful specimen of Latinity with which he was acquainted. All this is rather interesting as an unusual example of classical attainments in one whose life work was in another and entirely different sphere from that of the classical student.

In this different sphere, too—medicine—he was no less distinguished. Born in 1788 and dying in 1874, he lived in 4 generations, during which time, wherever he went, he consorted with the most eminent men of the day, political, literary, scientific. His works well repay perusal, being filled with reminiscences of travel and society, seasoned with anecdotes, and "fertile in the highest interest". Curiously enough, since I wrote the above, I have come across another work by Holland, published in 1814, a quarto volume entitled "*Holland's Travels*", covering chiefly Greece and the Ionian Islands, and containing a vast

amount of information particularly valuable to those interested in classical topography. I forgot to say that on the title page of the "*Recollections*" is the following sentence from Martial (10, 23, 7-8). "*Hoc est vivere bis, vita posse priore frui*," a maxim which Sir Henry Holland realized as fully, probably, as would be possible for any one under the ordinary conditions of human life.

#### AMERICAN COLLEGE OF PHYSICIANS.

(Letter from W. Blair Stewart, M. D., Governor of the College, for New Jersey.)

Announcement is made that The American College of Physicians will hold its Eleventh Annual Clinical Session in Cleveland, Ohio, February 21-25, 1927. Dr. Alfred Stengel of Philadelphia is president of the college and Dr. John Philips of Cleveland is the chairman of the Program Committee. The program will be of unusual interest to Internists (including Neurologists, Pediatricists, Roentgenologists, Pathologists, Dermatologists, Psychiatrists and others engaged in the field of Internal Medicine.) The Cleveland hospitals and the Western Reserve University will coöperate with the college in the presentation of the program. These programs constitute each year a post-graduate week on Internal Medicine of outstanding merit.

During the mornings, there will be clinics and demonstrations at the various hospitals and in the laboratories of the Western Reserve University; during the afternoons, papers on various medical topics will be delivered by local members of the profession and by members of the college from other parts of the United States and Canada; during the evenings, there will be formal addresses by distinguished guests, American or foreign, and by the President or other representatives of the college.

The American College of Physicians is a national organization in which Internists may find a common meeting ground for discussion of the special problems that concern them and through which the interests of Internal Medicine may have proper representation. Membership in this organization is limited to those in the field of Internal Medicine. While it is not a limited national society of specialists (mostly prominent medical teachers), it is not coördinal with large national or sectional organizations of physicians requiring no special professional qualifications. Its standards are high and many men of distinction in the profession are numbered among its members.

An invitation has been extended by the college to all qualified physicians and laboratory workers to attend the Cleveland Clinical Session. An attendance in excess of fifteen hundred is anticipated.

#### TESTIMONIAL DINNER.

(A Letter from Dr. M. I. Marshak, Bayonne)

Dear Doctor Reik:

Dr. W. Friele, President of the Hudson County Medical Society, has appointed Drs. Pollak, Alexander, Curtis, Cosgrove, Donohoe, Halligan, Jaffin, Kelley, Jos. Koppel, Londrigan, Lemmers, Larkey, Miner, Frank McLoughlin, John Nevin, Niemeyer, Purdy, Opdyke, Perlberg, Wallace Pyle, Quigley, Sexsmith, Spence, Von Deesten, Woodruff, Howard Forman and O'Hanlon a committee to arrange for a "testimonial dinner"

to be given to Dr. Gordon K. Dickinson in commemoration of the completion of his fiftieth year in the practice of medicine.

Any of Dr. Dickinson's friends throughout the state who are desirous of attending that dinner should communicate with either Dr. B. S. Pollak, at the Laurel Hill Sanatorium, Secaucus, N. J., or Dr. Harry Perlberg, Trust Company of New Jersey Building, Sip and Bergen Avenues, Jersey City, N. J.

Dr. B. S. Pollak was named General Chairman; Dr. Friele, Vice Chairman; Dr. Perlberg, Secretary; Dr. Cosgrove, Chairman of the Sub-Committee on Program; and, Dr. Quigley, Chairman of the Sub-Committee on Arrangements.

## In Lighter Vein

The Prohibition Law, it seems, wins another decision on pints.—Norfolk Virginian-Pilot.

Our big cities aren't shooting too many people. They're just shooting the wrong people.—El Paso Times.

One reason it's safer to breathe through your nose is because that makes you keep your mouth shut.—El Paso Times.

### The Idea!

"I have just purchased a Thesaurus."  
"You can't fool me. Those animals have been extinct for a million years."—Wisconsin Octopus.

### All Busy.

The mother was ill in a home where a radio had recently been installed. The doctor came and small Emily looked on wonderingly as he used the stethoscope. "What station is he trying to get, mother?" she asked, when she could no longer contain her curiosity.—Capper's Weekly.

### Down and Out.

Jeffrey—"So your son has been injured and is coming home from college?"

Briggs—"Yes, he sprained his ukulele finger."  
—Detroit News.

### The Way Today.

"I don't like these newfangled doctors."

"Naw?"

"Naw. Went to one the other day and I had to tell my symptoms to a sassy looking girl at a desk. And she put 'em down just like you'd take down a grocery order."

### Native of Chicago?

Conductor (somewhat irritated after stumbling over obstacle in the aisle): "Madam, you must remove your valise from the aisle."

Passenger: "Fo' de lawd sake, Mistah Conductor, dat aint no valise. Dat's mah foot."

### Liberal Minded.

Mistress: "My husband writes his engagements in his shirt-cuffs; I hope you don't mind."

Washerwoman: "Lor,' no, mum; I love a bit o' scandal!"—Tit Bits.

## County Society Reports.

### ATLANTIC COUNTY.

Harold S. Davidson, M. D., Reporter.

The regular monthly meeting of the Atlantic County Medical Society was called to order on Friday evening, January 14, at 8.30 p. m., at the Chalfonte Hotel, Atlantic City, by Dr. Charles B. Kaighn, president.

The minutes of the previous meeting were read and approved.

Dr. W. B. Stewart, Chairman of the Public Health and Legislation Committee, corrected a rumor that there is an epidemic of diphtheria in Atlantic City at the present time. The local health department of Atlantic City has, however, launched a campaign to wipe out diphtheria and has given toxin-antitoxin to some 3500 school children. Thirty cases of diphtheria had been reported to the health authorities.

There have not been any cases of typhoid fever reported to the Board of Health for the last month and a half.

Dr. W. E. Darnall, Chairman of the Library Committee reported that when the new hospital is completed, the medical section of the free library will be removed to the Atlantic City Hospital as a branch library.

A letter was read from the Secretary of the American Medical Association stating that the Interstate Post-Graduate Assembly meets with their approval and it was therefore moved by Dr. C. C. Charlton that this body be asked to meet in Atlantic City in 1928.

The President reported that the Atlantic County Medical Society has inaugurated a series of health talks to be broadcast from station W P G, Atlantic City, N. J. The first talk was given on Saturday, January 8, by Dr. Harold S. Davidson, on "Pneumonia".

Resolutions of sorrow were presented to the families of Dr. Gurney Williams and Dr. A. W. Whealton on the untimely death of these members.

Resignations from Drs. Henry Ritter, Rodman E. Sheen and E. J. Porteous were received and accepted. Dr. Sheen, who will remain in this city, was invited to attend the meetings of this Society at his pleasure.

Application for associate membership was received from Dr. B. B. Barab, D.D.S., and applications for full membership were received from Drs. C. B. Weinberg of Atlantic City and George A. Poland of Pleasantville, N. J. These were referred to the Membership Committee for consideration.

Dr. Henry O. Reik, Editor of the State Society's Journal, gave a "Motion Picture Demonstration of Periodic Health Examination". This topic is being presented by Dr. Reik to the various county societies of this state.

Dr. Reik remarked upon the Sheppard Towner Act, which is pending before the Senate of the U. S., and pointed out the advisability of the profession opposing this bill. Also a bill to amend the Harrison Narcotic Act, which would jeopardize a physician's right to prescribe narcotics as he saw fit, was discussed by Dr. Reik and all members were urged to bring pressure to bear upon their senators and representatives to kill this legislation.

Dr. Reik spoke of the Tristate Conference, which was reported in the January journal, and of the last 2 meetings of the Welfare Committee, which will be published in the February journal.



He also spoke of the coming state-wide campaign to prevent diphtheria and congratulated Atlantic County upon its work in this direction.

Dr. H. L. Harley, Atlantic City, read a paper entitled "Historical Sketch of Laennec". This paper will appear in an early issue of the journal.

Dr. George Gray Ward, Chief Surgeon, Woman's Hospital, New York City, and Professor of Obstetrics and Gynecology, Cornell University Medical College delivered an interesting address upon "Carcinoma of the Uterus and Its Treatment".

Carcinoma is in the public eye. We are looking forward to the day when curative remedy will reach carcinoma. Until then, we must use the best we have, which is surgery and irradiation. Antimicrobial therapy and intravenous therapy are not yet applicable. There are 300,000 cancer cases in the United States today, or in other words 89.4 out of every 100,000 persons have cancer; 14% of these are in the female pelvic organs.

Cancer of the Cervix. Because of the rich lymphatic and blood supply, cancer of the cervix is much more likely to metastasize than is cancer of the fundus. These growths may be squamous cell, which is slow growing; spindle cell, which is rapid in growth; or the adenocarcinoma, which is between the other two. Cancers of the cervix are classified as (1) early cancer of the cervix; (2) later but cervix only involved; (3) border line and beginning in the parametrium tissues; (4) "the frozen pelvis" or involvement deep into the tissues of the pelvis. Class 1 and 2 are hopeful and it is imperative to educate the public to recognize cancer in these stages. Age incidence is earlier than has been taught. Dr. Gray's cases range from 26 to 77 years of age. In his series of 196 cases, 8 were under 30 years of age and 45 were under 40 years of age.

Symptoms. Few and insidious in early stages. Importance of slight symptoms pointed out. Pain is late. At first leukorrhea, slightly blood tinged. Any irregular spotting should be checked up. Do not put it down to change of life. It is necessary to make a good visual examination. Rectal examination is necessary for evidence of infiltration. Wherever there is a friable ulceration, do a biopsy. If the growth starts in the cervical canal, it is concealed and the only evidence is bleeding from the cervix; one should secure tissue for examination, using a curette carefully.

Treatment consists in operation, irradiation, or a combination of both. Where a growth is extensive, radium is best. Whenever an operation is advisable, panhysterectomy is not enough; do a radical Wertheim operation. Mortality from operation itself is about 10%. The best results by this operation after 5 years were 25% with no recurrences. Radium acts on the cancer cell in the following ways: Caustic destruction of the cell; antolytic degeneration; growth restraint. It produces scar tissue and this contracts and chokes off the lymphatics and blood-vessels, and imprisons the cancer cells within the scar. Large quantities of radium are not necessary. Too large dosage produce too extensive a destruction. There is no uniform dosage. Consensus of opinion is that 2400 to 4200 mgm. hours is about right, and watch the results as you go. Radium first produces hyperemia and then a slough, which comes away and leaves a healthy granulating surface. This is followed by scar tissue which contracts and the final picture is one of cicatricial anemia. This takes about 3 months. It is imperative that the lesion be inspected every month to see that things are progressing as they

should and, if they are not, another application is given and sometimes as many as 3 or 4 are necessary. X-rays have no advantage over radium except perhaps in very high voltage, which is available only in a very few clinics in the United States. By using radium in late cases of cancer of the cervix, 23.6% were well after 5 years. In Class 1 and 2 only, 52.9% were well after 5 years.

Cancer of the Fundus. This condition is simpler because of the anatomy. It is adenocarcinoma of the endometrium and is confined there for a long time. Here panhysterectomy is all that is necessary and 75% of these cases stay cured after 5 years. In bad surgical risks, radium is used in the fundus, but you are working more in the dark and results are not so certain. Carcinoma of the fundus is very often associated with fibroids and care must be taken not to associate all the irregular bleedings with fibroid alone. Curettage and examination of the scrapings is the proper method of diagnosing this condition.

This lecture was well illustrated with lantern slides.

#### Atlantic City Hospital Staff.

Joseph H. Marcus, M. D., Secretary.

The Annual Meeting of the Atlantic City Hospital Staff was held in the Nurses' Auditorium, January 21, 1927. The meeting was called to order by Dr. Richard Bew, president. Several applications for appointments to the hospital staff were read by the secretary; it was moved and duly seconded that the president appoint a special committee, whose duty comprises "a thorough investigation of applications for staff appointments."

The treasurer, Dr. Joseph Poland, reported a balance of \$217.77. Dr. D. Ward Scanlan, chairman of the program committee, thanked the members for their coöperation and complimented the men upon the excellency of their reports for the year.

Dr. Theodore Senseman, surgical director, reported the reappointment of the staff by the Board of Governors, as submitted the previous month by the Major Staff, with Dr. Theodore Senseman as Surgical Director and Dr. Richard Bew as Medical Director. Dr. W. J. Carrington, chairman of the interne committee, stated that over 200 applications for the position of Resident Physician has been received by him, from which number 10 will be appointed.

The following officers were unanimously elected to serve for 1927: President, Dr. William J. C. Carrington; Vice-President, Dr. Samuel L. Salasin; Secretary, Dr. Joseph H. Marcus; Treasurer, Dr. Joseph Poland; Chairman of Program Committee, Dr. Clarence L. Andrews.

The Scientific Program which followed consisted of a paper on oxycephaly, with case report, by Dr. Joseph H. Marcus; Report of Two Cases from the Medical Service of Drs. E. C. Chew and C. L. Andrews, by Drs. Griffith Ratcliffe and Levi Walker; Report of Gynecological Service, by Dr. Walt P. Conaway.

Dr. Marcus presented a case of oxycephaly with photographs of the patient. This patient was admitted to the surgical service, primarily for a fracture of the femur, and this anomaly was presented through the courtesy of Drs. Theodore Senseman and James H. Mason, Jr. Kelynack states that this rare developmental abnormality embodies a type of idiocy occurring only once in two to three thousand cases. The commonest subjective symptom is impairment of vision. The

condition has been mainly investigated by ophthalmic surgeons, being first described by von Graefe. Exophthalmos is generally present and the mental state may be normal or deficient. The salient clinical features are a dome-shaped mound rising from the forehead, separated from the temples by shallow furrows; the supra-orbital ridges are absent, and the eyes protuded and large; the optic atrophy is postneuritic in type. Shuttleworth states that exophthalmos is due to malformation of the orbit, the upper wall slopes down toward the floor at a more acute angle than in the normal.

**Causation:** Patry concludes that the cranial deformity commences in the first year of life and is due to premature synostosis of the coronal and frontal sutures. He endorses Virchow's view that the primary cause of the cranial deformity and the optic neuritis is a meningitis. Feer supposes the cause of the optic atrophy to be due to an increase of intracranial pressure.

**Treatment:** When signs of pressure are present operative procedure is justified. Sharpe advocates a unilateral or bilateral decompression as affording prompt relief. Schloffer's original technic has been advocated by many. Dr. Lewis Rosenberg, resident physician, obtained a very comprehensive and interesting history from the father. A deformity similar to the patient's is present in an aunt, aged 23, whose mentality is normal; also in a sister, aged 6, the entire left side of the forehead is involved. The age of the patient is 3 years, and his mentality is moderately impaired.

Dr. Griffith Ratcliffe, resident physician, reported a case of Abdominal Thoracic Aneurism of the Aorta, from the medical service of Drs. E. C. Chew and C. L. Andrews. The outstanding clinical symptom was a painful neuritis. The patient was a negro, 27 years of age, born in Cuba, occupation chef; admitted October 26, 1926, with complaint of pain over the left iliac crest and in the left lumbar region. Pain began suddenly one year ago, and has always been lancinating in type and continuous. It originates over the twelfth thoracic and first lumbar vertebrae; other complaints were constipation, no normal defecation having occurred for 6 months; the stools had gradually become scantier and at the time of admission they were mostly liquid, accompanied with a great deal of flatulence; strong purgatives were required. Other symptoms were dyspnea, asthenia, loss of weight, epigastric fullness following ingestion of solid food.

**Personal History:** Moderate smoker, non alcoholic. Has had scarlet fever, pertussis, pleurisy at the age of 10; penile chancre in 1919, which was untreated.

**Physical Examination:** Outstanding features were heavily coated tongue, marked cavitation of all teeth, gingivitis, bilateral cervical adenopathy, marked roughening of the aortic sound, with the aortic arch about 1 in. wider than normal. Cardiac impulse in normal position. Arteriosclerosis of all palpable vessels; 1 in. below the left costal margin and 1 in. to the right of the left midclavicular line there was noted a pulsation, synchronous with the cardiac impulse. Over the impulse was a definite mass about the size of a hen's egg, which was felt on percussion; a bruit was heard and was transmitted to both iliac vessels which could be easily palpated on account of the marked emaciation present; the liver was 2 fingerbreadths below the right costal margin; a scar was noted on the dorsal aspect of the penis. Blood pressure: 88/46 in right arm. The blood count contained nothing ab-

normal. Complement fixation test for luetic antibodies 44,400. Urine showed a trace of indican. Roentgenographic examination demonstrated widening of the arch of the aorta; a shadow, present in the abdomen, was in the position of the liver and of the same size and shape, appearing to extend well over to the side, which Dr. Ratcliffe believes to be the mass felt on palpation.

**Differential Diagnosis:** This could not be hepatic, because a definite groove could be felt between the liver and the mass. The impulse was not transmitted to the enlarged right lobe of the liver.

**Omental Tumor and Cyst:** The mass continued to pulsate with the patient in stooping position. If an omental tumor were present the probability is that this mass would fall away from the aorta and cease to pulsate with the patient on all fours. Tumors of the intestinal tract were considered; no occult blood was found in the stools, but this consideration did not altogether rule out this condition. Cyst of the pancreas was eliminated as a possibility, but the character of the stools did not favor this diagnosis. A provisional diagnosis of aneurism of the aorta was made. The patient died 3 days after admission and the postmortem findings ascribed the causation of the pain to the impingement upon the twelfth thoracic nerve by the lateral walls of the aneurysmal sac. The marked constipation was explained by Dr. Ratcliffe by the abdominal findings. The outstanding features of the postmortem by Dr. Robert Kilduffe were: marked emaciation, palpable mass in upper left quadrant, small penile scar on dorsal aspect; kidney showed chronic interstitial changes; a sacculated aneurysm of the thoracic and abdominal arch extended to the level of the third lumbar, the posterior border of the aneurysm being formed by the vertebrae and the lower border of the sac hanging over the third lumbar vertebra. The vertebrae posterior to the sac were deeply eroded. The aneurysmal sac ruptured into the chest through the crura of the diaphragm.

Dr. Levi Walker presented a case of blood stream infection by the *Bacillus Eberthella* *Ben-tolensis*, from the service of Drs. Chew and Andrews. This organism is a large gram negative motile bacillus belonging to the same general group as *Bacillus typhosis*, and which is found normally in the intestinal tract of man. Dr. Walker quotes Dr. Bergey, stating that the organism is one of relatively low pathogenicity.

**Case Report:** Patient, male, 40 years of age, native of the United States; occupation, professional billiard player; was admitted to the hospital complaining of intermittent chills and fever. Onset one week prior with similar symptoms.

**History:** Residence in the malaria zone 14 years and since that time patient has experienced recurring chills and fever twice a year, each attack lasting 2 or 3 days. Patient was a moderate drinker, smoked about 30 cigarets daily, and due to his profession has always kept very irregular hours; father died of heart disease, mother died in childbirth, several brothers and sisters died in infancy. The positive physical findings were emaciation, skin dry with yellow tinge, marked icterus of the sclera; all teeth had been removed. Pulse was of the water-hammer type with frequent premature beats; blood pressure 90/30 in left arm and 90/0 in right arm, slight bulging of precordium. Apex beat was diffuse and visible in the sixth interspace 2 cm. to the left of the nipple line; palpable pulsation



in the suprasternal notch, systolic thrill over the entire precordium and great vessels of the neck; cardiac dullness to a point 3 cm. to the left of the midclavicular line and about 2 cm. to the right of the sternum. The mitral first sound was greatly accentuated, and a low rough to and fro murmur was audible over the entire precordium. The aortic valve sounds were obliterated by this murmur. Liver and spleen were slightly enlarged. The deep tendon reflexes were somewhat exaggerated.

**Clinical Picture:** One of septicemia of a virulent type. Daily chills followed by drenching sweats and an abrupt rise in temperature, frequently reaching  $105^{\circ}$  and then falling to normal or subnormal in the space of a few hours. As the disease progressed the mentality became sluggish, and patient slept a great deal; incontinence of urine and feces, during the last days of his illness. At this time there were indications of a rapidly failing circulation as evidenced by signs of a precordial effusion, pulmonary edema and hepatic engorgement. Patient died 22 days after admission.

**Therapy:** Owing to the suggestive history of malaria, patient was given quinin accompanied by general supportive measures. As the malaria organism was not found after repeated doses of quinin, and as no appreciable benefit was derived from this therapy, it was discontinued. Daily leukocyte counts demonstrated 8000 to 10,000 with 80 to 90% polynuclear leukocytes. Several days following admission a final report of the blood culture demonstrated the presence of the *Escherichia coli* in the blood stream, in large numbers—110 colonies per c.c. blood; ten c.c. 1:1000 solution of metaphen was given intravenously; the following day the dose was repeated. Following this second dose of medication the leukocytes fell from 10,300 to 4800, the polynuclears being reduced from 84% to 74%; the temperature range was uninfluenced. Intravenous medication was discontinued. Progressive anemia throughout the course of the disease was apparent. At this time the red blood cells had fallen to 180,000 with a color index of 1.4 with marked anisocytosis and poikilocytosis. A blood culture taken 3 days before death showed 11 colonies per c.c. The dominant features of the autopsy by Dr. Kilduffe were: emaciation and jaundice; precordial sac contained 55 c.c. blood-stained serous exudate, heart covered with fibrinous exudate. Aortic valve showed an enormous vegetation about the size of a walnut, and numerous small vegetations on the mitral valve which was thickened. Spleen was soft and congested and about 4 times normal size. *Bacillus coli* was found in the pericardial fluid, right ventricle, liver, spleen peritoneal fluid.

**Anatomic Diagnosis:** Pleuritis without effusion, pericarditis with effusion, myocarditis, vegetative endocarditis, splenitis, cirrhosis of the liver, enterocolitis.

Dr. Walt P. Conaway, Gynecological chief reported his service, extending from August 1, 1926, to December 1, 1926, inclusive. Of the 75 admissions, 48 were white and 25 colored; 68 were operated on and 5 discharged without operation. Of those discharged without operation, 1 was considered inoperable. Dr. Conaway performed 106 major and minor operations with 1 death. This case was that of woman 34 years of age, with a marked family and personal history of tuberculosis; admitted with a diagnosis of a large ovarian cyst, chronic salpingitis, and chronic appendicitis. The cyst was sufficiently large to cause, at times, a partial intestinal obstruction.

Wassermann was negative, blood pressure low, accompanied by a secondary anemia.

An exceptionally interesting case report follows: Italian woman, 33 years of age, married, 7 pregnancies. Admitted to the hospital October 13, with a diagnosis of incomplete abortion at about 8 weeks and with a tender mass in the lower right quadrant of the abdomen. Last menstruation was August 2 to 8, and normal. Early in September spotting was noticed for a few days, but no regular menstruation, and from that time pain in the right side of the abdomen had been almost constant. Three days prior to admission the patient had an attack of pain in the abdomen and the next day aborted a fetus only. Examination on admission disclosed a portion of the placenta protruding from the cervix, and a tender fluctuating mass could be easily felt on the right side of the uterus. Operation consisted of a D. and C. for incomplete abortion and a laparotomy for a ruptured tubal pregnancy. The right tube, ovary and appendix were removed.

The important finding in the laboratory report, by Dr. Kilduffe, was that the right fallopian tube was markedly swollen and presented a point of rupture at the middle third, at which point a large clot had partially escaped. This was quite evidently a ruptured ectopic gestation as the clot contained fragments of tissue, grossly deciduous in character; ovary contained a large hematoma; the clot removed from the uterus contained placental fragments and the evidence presented by the specimens indicated the coincident presence of a ruptured ectopic pregnancy and an aborted uterine pregnancy. Patient made an uneventful recovery and was discharged in good condition 16 days after admission.

Dr. Conaway presented the following case with the accompanying unusual history and with results so satisfactory that the report seems warranted: A woman, 60 years of age, married, never pregnant, was admitted April 16, 1926, with diagnosis of a large painful tumor of the right breast and a large tumor of the abdomen. For the past 2 years breast had been increasing in size and during the past 3 months had become more painful. A radical breast operation was performed April 17, followed by an uneventful recovery.

Laboratory report classified the tumor as a fibro-adenocarcinoma. Patient was discharged April 23, 6 days after operation, and promised to return within a few months to have the abdominal tumor removed. May 4, she was readmitted suffering from intense pain and swelling of the abdomen. On account of her condition an exploratory laparotomy for drainage was performed, and considerable straw colored fluid was evacuated. Condition improved for several days, but the pain continued, and 9 days later, on May 19, the tumor was removed. The growth was a fibrocystic tumor of the right ovary, which weighed 18½ pounds. Patient made a prompt recovery and convalescence was normal.

The laboratory report stated that the tumor was an adenocystoma, containing a pseudomucinous material, the type of tumor being benign in character. Photographic illustrations of the tumor were presented. Dr. Conaway exhibited photographs of a squamous cell carcinoma of the anus removed in a boy 15 years of age. The patient left the hospital 4 days after operation.

In summing up, Dr. Conaway recommended the use of less saline and more glucose solutions intravenously, in combating shock and raising blood pressure. He believes that glucose solu-

tion given intravenously is the best remedy for postoperative shock, dehydration, toxic absorption and even a generalized septic infection. A convenient mixture is composed of acacia, glucose and sodium chloride in 250 c.c. ampules.

Hypodermoclysis, the rectal drip and the oral administration of large quantities of fluids, as well as the gastric or duodenal drip method, are of secondary value in combatting these conditions. Frommer believes large amounts of fluids, preferably isotonic glucose solutions, given intravenously are often most valuable in case of shock and dehydration.

Dr. Conaway quoted Newell (Am. J. Obst. and Gynec., Aug., 1926) to the effect that intrauterine injections of iodized oil (Jodipin), followed by x-ray study, is of some value in differential diagnosis of pelvic conditions.

Crile, it was noted, states that in his Clinic he is using repeated doses of diathermy, during and after operation, in bad risk patients or in long operations, the dose being delivered through the base of the lungs and over the liver. He thinks the high incidence of pneumonia following operations may be due to the cooling of the blood in important organs and too much exposure of the intestines. By the use of diathermy and radiant heat energy, the surgeon has increased his armamentarium for postoperative treatment.

Dr. Conaway spoke of the Cancer Symposium at Lake Mohonk, last September, where representatives from 8 foreign countries joined with Americans in discussing various phases of this serious problem. There was, of course, some disparity of opinion regarding the etiology of cancer, but few favoring the parasitic theory. Most speakers minimized the rôle of heredity as an important causative factor, but all were agreed on the necessity of early diagnosis and prompt treatment, either by surgery, Roentgen rays or radium.

Such world-renowned men as Professor Alesandri, of Rome, W. Sampson Handley, of London, and W. J. Mayo, of Rochester, contributed to a symposium on cancer, at one of the sessions of the American College of Surgeons in Montreal, recently.

They recognized only 2 methods of treatment: (1) Removal by surgery of the entire growth and lymphatic extensions; (2) destruction of the growths in the cells, so far as possible, by such agents as actual cautery, surgical diathermy, fulguration, Roentgen rays and radium. No new methods of treatment were suggested, but the statement was made that since science had developed beyond a doubt an immunizing agent for diphtheria, small-pox, tetanus and now scarlet fever, it did not seem very unreasonable to hope that with further study of this dread disease, an immunizing agent might be found.

Dr. Conaway cited a case in which two Frenchmen, Coliez and Proust, report a remarkable cure of a case of carcinoma of the cervix in a 60 year old patient, whose condition on admission was considered inoperable. Three 50 mg. sources of radium were placed about 8 cm. from the skin over the pelvis and left for 22 hours out of 24 for 30 days. The skin was protected by lead sheets, gauze and a layer of wax. A vaginal application of radium was made to the cervix and caused a disappearance of the broad ligament involvement.

In closing, the speaker noted that the use of colloidal lead as suggested by Blair Bell of London, has not as yet proved worthy of general acceptance; nor has the use of milk injections for

the cure of pelvic inflammations met with wide favor.

A general discussion followed the presentation of the scientific program, after which the meeting was adjourned.

### BERGEN COUNTY.

Spencer T. Snedecor, M.D., Reporter.

The annual meeting of the Bergen County Medical Society was held on January 11 at the Hackensack Hospital. Officers of the society for the year of 1927 were elected as follows: President, George W. Finke, of Hackensack; Vice-President, Frank C. McCormack, of Englewood; Treasurer, Michael Sarla, of Hackensack; Secretary, E. L. Clark, of West Englewood; Reporter, Spencer T. Snedecor, of Hackensack. Acting upon the report of the treasurer, the dues of the coming year were raised from \$12 to \$15. There is \$1400 in the treasury.

Drs. F. E. Kier, H. M. Kenyon and F. Dilger were accepted by transfer into the Bergen County Society. Drs. A. A. Bickner and J. Proutzman were duly elected to membership. The secretary reported that the total number of active members is now 122.

"Asthma" was the topic of an instructive lecture by Dr. William S. Thomas, attending physician at St. Luke's Hospital in New York, who devotes his entire time to this one subject.

Asthma is bronchospasm and is to be regarded not as a disease but as a symptom-complex. Dr. Thomas insists that the single term asthma is all inclusive and such descriptive adjectives as cardiac and bronchial should be discarded. Asthma shows as an hereditary trait in 70% of the cases. The fundamental causes and mechanism of bronchospasm are still obscure. Our problem with an asthmatic patient is, first, to find the specific cause and, second, to administer the specific treatment.

Asthma may be divided into 2 types, ingesting and inhaling. Food proteins are absorbed through the intestinal tract and pollens by the respiratory tract. Physical agents play a decidedly secondary rôle. Relieve the primary protein sensitization and the physical aspects will disappear after a time. For instance, a bad case of pollen asthma in the summer may incite a troublesome bronchitis which prolongs the asthmatic symptoms all through the winter. As the pollen allergy is treated, the asthma continued by the bronchitis will slowly clear up.

The proper procedure with an asthmatic patient is as follows: First, relieve the symptoms by such drugs as morphin, atropin, benzyl-benzoate, adrenalin, iodides, etc. Second, obtain a careful history. If the attacks are seasonal the causative factor is probably the pollens. If the attacks are perennial the pollens may still be to blame, with the addition of some other continuing cause. A patient's occupation is often suggestive. Contact with the emanations of horses, dogs, cats, and other pets should arouse suspicion. Pillows, quilts and dust-laden atmosphere must also be remembered.

Physical examination should emphasize a careful search of all the sinuses for focal infection. The lungs may show emphysema, although this condition is not often to be seen in children. A special point to note is that ether anesthesia need not be avoided in asthmatic patients. In fact it will often relieve the asthma completely for a period of time. Tests for the inciting pollens are purely technical. Dr. Thomas prefers the dermal to the intradermal tests. In



reading the results, one must always compare the control and the reactions, as these will be found to vary greatly according to the patient.

As a general principle of treatment for these patients it is easier to find and avoid the specific protein than to attempt desensitization, which is a very long process and the results are uncertain except with the pollens. In pollen cases, about 80% may be desensitized through one season.

In palliative treatment, Dr. Thomas finds that the iodides are especially effective in cases with bronchial infection. He administers the iodine as a 10% tincture in ethyl alcohol, 50 drops in a half glass of milk. Atropin is occasionally useful in large doses. Dr. Thomas also stated that adrenalin may be taken for year without untoward affects. He has also found that ether in an oily solution by rectum gives excellent results.

He concluded his talk by a short discussion of the promise given by the new drug ephedrin, a Chinese alkaloid. It is better than adrenalin because it may be taken by mouth and its affects last from 4 to 24 hours. It is to be particularly recommended for children.

#### Associated Physicians of Hackensack Hospital.

Spencer T. Snedecor, M.D., Reporter.

The monthly meeting of the Associated Physicians was held on January 17, with 44 doctors present.

Dr. R. Gilady, for the Library Committee, submitted the following list of current periodicals to be subscribed for by the G. Howard MacFadden Memorial Library. Surgery, Gynecology and Obstetrics, American Journal Diseases of Children, Archives of Internal Medicine, Archives of Dermatology and Syphilology, Archives of Otolaryngology, The Lancet, and Clinics of North America. The staff approved the list and is strongly supporting the effort to make this library a source of reference work and current reading for the physicians of the county.

The first subject on the program was "Eclampsia". Dr. David Corn presented a case in which cesarian section had been done. The patient was 2 weeks from term when convulsions ensued. Immediate cesarian was performed under spinal anesthesia and a live baby delivered. The patient suffered almost complete anuria from the onset of the first convulsion but seemed to withstand the operation well. Convulsions began again after a few hours. All sedative and supportive measures were tried but the patient died on the fifth day after being 48 hours in coma. Dr. Corn felt that in this case death was due to a badly damaged kidney and that it was fortunate that the baby had been saved by section.

Dr. George L. Edwards reported a case from the Ward Service in which the patient was a para XI and apparently 5 months along, with edema of both lungs on admission. Her blood pressure was 170/120, and urine boiled solid with albumin. Strenuous eliminative treatment was started at once with magnesium sulphate by mouth and frequent high colonic irrigations. The patient improved for a few days but then turned for the worse and labor was induced by the insertion of a rectal tube. A still-born fetus was delivered. Two days later convulsions began and the following day the patient died.

Discussion brought out the point that both patients had an overwhelming nephritis and that in each case the treatment pursued was the one of choice.

Dr. George Finke reported 2 interesting cases. The first was that of a man 67 years old, complaining of vomiting, weakness, abdominal pain and loss of weight during the previous 2 weeks. At one time he had apparently vomited a pint of blood. On admission a large mass was palpable in the epigastrium, and both lungs showed areas of dullness and distant breath sounds. The patient died a few days after admission. The case was of interest because of the short duration of symptoms and the instructive autopsy specimens which were presented by Dr. Gilady, showing both lungs studded with metastases from a scirrhus type carcinoma of the pylorus.

The second case was one of complete fracture of tibia and fibula with dislocation of the foot. Immediate débridement and reduction was done. The patient ran an uneventful course with very slight wound infection until the thirteenth day when he suddenly went into collapse and died within an hour, from a pulmonary embolus, as shown by autopsy.

Dr. Wilson D. Webb read a comprehensive paper on "Acute Pelvic Inflammations". He covered the field of etiology, symptomatology and treatment, with special reference to those inflammations due to the gonococcus. The treatment of gonorrheal salpingitis is divided into the two categories of medical and surgical. Of the medical treatments, there are 3 types: (1) Conservative, with rest in bed and an ice bag to the abdomen. Dr. Webb feels that these measures are insufficient. (2) Vaccine and nonspecific protein therapy; good results reported by many authorities. (3) Diathermy, a comparatively new form of treatment based on the lethal temperature for the gonococcus at 104-108°. Dr. Cherry, of New York, has recently reported excellent results with this new method. The surgical treatment of acute gonorrheal inflammations of the pelvis is at present a mooted question. Dr. Webb quoted the experience of many authorities for and against immediate surgery; that is, as soon as a normal temperature has been reached. He has summarized a series of over 50 cases from the records of the Hackensack Hospital and tabulated the results, but the conclusions were not definite in favor of either surgery or medical treatments. From his personal experience, he feels that operative procedure in these cases is the method of choice; first because the early removal of an acute tube will preserve the function of the ovaries, and, secondly, because early removal forestalls long months of complaint and pelvic distress with an operation in the end.

#### BURLINGTON COUNTY.

R. I. Downs, M.D., Reporter.

The regular meeting of the Burlington County Medical Society was held at the Imperial Hotel, Mount Holly, on Wednesday, January 12, at 1 p. m. There were 21 members and guests present with President B. K. Brick in the chair. The guests were Drs. Sher, Resident Physician at the Burlington County Hospital; Rodman, of Beverly; and Lafavor, of Palmyra.

A fine dinner preceded the business and social session.

The death of Dr. R. C. Barrington was announced and a special meeting of the Burlington County Medical Society was called to attend the funeral on Thursday, January 13. Drs. Newcombe and Longsdorf were appointed a committee to draft a resolution on Dr. Barrington's death.

Dr. Remer reported on the work of the State

Society Welfare Committee. There had been 2 meetings since our last. No legislation to be promoted this year. Much thought is being given to future postgraduate courses. A "Primer", in pamphlet form, is being printed to be distributed to the public through the different civic organizations; its purpose being to present medical subjects to them in a simple way.

Dr. Longsdorf said that Mr. Darnall, Chairman of the Building Committee, reports progress with the new hospital. The suggestions of the doctors for slight changes in the building were accepted. The Rogers Company, of Moorestown, was the low bidder and received the building contract. The bid was approximately \$230,000. The contractors suggest reinforced concrete as a more durable and more quiet building than the second grade plain steel construction now planned. It would necessitate a \$6000 increase, however. The building can be completely furnished for the amount subscribed even allowing for a 5% default in payment.

To get the Woman's Auxiliary of Burlington County Society organized, the President was authorized to appoint 3 more wives of physicians to coöperate with Mrs. Mulford and Mrs. Remer, already appointed.

The 4 applicants for membership were unanimously elected: William C. V. Wells, of Delanco; E. Warren Rodman, of Beverly; F. D. Fahrtenbauch, of Mount Holly; D. H. Lafavor, of Palmyra. Drs. Rodman and Lafavor, being present, signed the constitution.

Dr. Longsdorf stated that the board of managers of the hospital have asked the medical advisory board, composed of Drs. Newcomb, Mulford, Rogers, Joseph Stokes and Longsdorf, to organize now a medical staff for the hospital, composed of local county doctors and associates. He wished a free discussion and expression of opinion from the Society. A questionnaire will be sent out to all members of the Society to determine those wishing to be placed on the staff and in what capacity. The general feeling was that all action should be toward placing and keeping the hospital on a high plane.

The following resolution of Dr. Ulmer, seconded by Dr. Hollingshead, was passed: "It is the wish of the Society that no irregulars including osteopaths, chiropractors, neuropaths, psychopaths, or christian scientists be connected with the hospital." The resolution of Dr. Scott, seconded by Dr. Stokes, was passed: "It is the wish of the Society that all members of the medical staff of the hospital must be members of the county society."

The scientific session of the meeting followed with the program of Dr. Harry L. Rogers, Chairman of Section of Practice of Medicine.

Dr. Howard C. Curtis, of Moorestown, New Jersey, took for his subject, "Discussion of Relationship of Constitutional Types to Disease". He presented very clearly and pleasingly the observations and conclusions of Dr. George Draper, of the Presbyterian Hospital, New York, on this subject. Different physical types are more susceptible to different diseases. The 5 main groups of diseases charted by Dr. Draper are: nephritis hypertension, tuberculosis, gall-bladder, pernicious anemia, gastric ulcer. All patients in each group have a strong similarity in the contour of face, body and limbs. This is a great aid in diagnosis of a doubtful case.

Dr. Parry M. Scott of Beverly, New Jersey, then presented his subject, "Ambulatory Treatment of Gastric and Duodenal Ulcer". He discussed 6 of his cases, 3 of duodenal and 3 of

gastric ulcer, the diagnoses of which were corroborated by x-rays. He considered focal infection, constipation and improper diet, to be etiologic factors in some cases. The pain is caused by, and is in proportion to, the amount of free hydrochloric acid present. Nervous symptoms are pronounced in duodenal ulcer and not in gastric ulcer. The treatment was considered under the headings of: (a) the test meal, especially for the curve of acidity; (b) diet; (c) medication; (d) lavage. A simple method to determine the curve of acidity was described. On an empty stomach, 20 minutes before entering the office, the patient should take 2 slices of bread with 2 glasses of water. Every 10 minutes for 1 hour, by means of the Rehfuß tubes, the stomach contents should be tested with litmus paper and the Hollinder hydrochloric acid scale.

At the close of the meeting, Dr. Remer was pleased to present an invitation from Dr. I. W. Hollingshead, of Philadelphia, to the Burlington County Medical Society, saying that Dr. Hollingshead desired the Society as his guests at the Union League, Philadelphia, on April 13, at 6 or 7 p. m., for their next regular meeting. This was in honor of the name, Hollingshead, which has meant so much to the Society, for his father, Dr. Enoch Hollingshead, was not only a former President of the local society but also President of the New Jersey State Society. The invitation was received with much appreciation and the Secretary was instructed to accept with thanks.

#### CAMDEN COUNTY.

Grafton E. Day, M.D., Reporter.

The regular monthly meeting of the County Medical Society was held at Camden, January 11, under the presidency of Dr. Alfred Cramer.

Drs. Roy B. Hays, of Collingswood, and Thomas P. McConaghy, of Camden, were elected to membership.

Applications were received from Drs. H. E. Swartz, A. T. Stone and William Dewey Evans.

A splendid paper on "Salt-Free Diet in the Treatment of Hypertension" was read by Dr. Mitchell Bernstein, of Philadelphia, and discussion followed by Drs. Lee, Bently, Rogers and Davis.

#### CUMBERLAND COUNTY.

E. S. Corson, M. D., Reporter.

The Cumberland County Society met at the Weatherley House, Millville, January 4, Dr. H. H. Wilson presiding. Resolutions setting forth appreciation of the Society were presented to Dr. H. G. Miller, retiring Secretary, for his efficiency in that office for 16 years. Gold coins were presented to Dr. and Mrs. Miller.

Dr. Leslie E. Myatt, of Bridgeton, was proposed as a member of the Society.

Mrs. Maud Borda, representative of the New Jersey State Tuberculosis League of this District, explained the work of the League and its results. She asked for coöperation of the family physician in carrying out the work.

The organization of a Woman's Auxiliary to the Medical Society was discussed, and the president appointed to confer with the ladies.

Dr. Martin E. Rehfuß, of Philadelphia, discussed the subject of "Ulcers of the Stomach and Duodenum, from the Practitioner's Standpoint". The statistics on this subject are very meager. There is no recognized method of treatment;



symptomatic care relatively easy. Surgeons are not agreed as to method of operation. There are 2 groups, conservative and radical. In hands of good physicians, 88% of patients recover; complications develop in 12% to 15%. Diagnosis depends on history, physical and x-ray findings, and gastric analysis. Gastric ulcer produces pain 2 or 3 hours after eating, the sequence being food, comfort, pain. Ulcer of duodenum occurs 4 times more frequently in men than in women. Seasonal recurrences are noted, especially in October and November. The perforating ulcer gives constant pain. In uncomplicated cases there are but few physical symptoms. Functional changes in the blood are noted, with high acidity. Diagnosis is comparatively easy as to presence of ulcer; the difficulty lies in determining location and degree of involvement. In the event of distinct organic changes, the case should be referred to the surgeon. The object of treatment should be to lessen the work of the stomach, size of stomach and motor function. A small amount of food frequently taken is more easily digested. Antacid medication does not cure ulcer. Medical cure requires 6 months. Latent cases may prove intractable.

Coöperation of general practitioner is especially needed. People should be taught that absence of symptoms does not mean cure. The proper method of living must be inculcated. All methods of diet are characterized by small frequent feedings. Milk is the ideal food; warming it produces small granular curd. Hemorrhages require ice-bags to stomach, and morphin. Excessive hemorrhage may require transfusion. Hypertension and nephritis are dangerous complications. In giving alkali, alkalosis should be borne in mind. After blood disappears from stools, cereals and eggs may be added to the diet. Food requiring a long time to digest should be avoided. There is no difficulty in teaching any class of workman as to proper method of living. A program should be constructed for every patient.

#### GLoucester County.

Henry B. Diverty, M. D., Reporter.

The Gloucester County Medical Society met at the Country Club, Thursday evening, January 20, 1927. The following members were present: Drs. Burkett, of Pitman; Sinxon, of Paulsboro; Hollnshed, of Westville; William Brewer, Campbell and Diverty, of Woodbury; also Drs. Shafer and Comley, delegates from Camden County.

A most interesting and instructive address was given by Professor George F. Muller, of the University of Pennsylvania, on "Recent Surgical Literature".

A luncheon followed.

#### HUDSON County.

M. I. Marshak, M. D., Reporter.

The Hudson County Medical Society met on January 4, 1927, at the Jersey City Hospital, with Dr. W. Friele presiding.

Dr. Friele announced that Drs. Cosgrove, Quigley, Von Deesten and Marshak were appointed a committee to study the advisability of having sectional meetings.

Dr. Woodruff reported for the dinner committee that the 1927 dinner would be held at the Hotel Pennsylvania, New York, on Saturday evening, February 19, the cost to be \$5.00 per plate, and the dress optional.

Dr. Dickinson, for the special committee on

parking, stated that nothing new had developed.

Dr. Spence reported that the special committee appointed to look into the conduct of Dr. John J. Rudolf, found sufficient evidence to feel that he had conducted himself unethically and advised that the evidence be given to the Board of Censors for action. This on motion, was accordingly done.

Dr. J. B. Faison, son of the late W. F. Faison, was unanimously elected to membership following an immediate special report of the Board of Censors.

Dr. Walter T. Dannreuther, who interned at the Jersey City Hospital 22 years ago and who is now Professor of Gynecology at the New York Post Graduate Hospital, read the paper of the evening on "The Enigma of Ectopic Pregnancy". This was illustrated by lantern slides.

The speaker noted the fact that the fimbriated extremities of the tubes and the ovaries are separated from each other by some distance. The ovum, at first free, is attracted by the fimbria into the tubes. Fecundation usually takes place in the tubal lumen. The fertilized ovum is propelled by the cilia in the tube and by its contractures into the uterine cavity and a normal pregnancy proceeds. If the cilia are absent, because of inflammation or other injury, retention of the fertilized ovum occurs and produces a tubal pregnancy. Gonorrhea and puerperal sepsis are the chief causes. The causes of ectopic may be classified as: (1) denudation of cilia; (2) extrinsic pressure; (3) crippled peristalsis, and (4) congenital anomalies.

The gestation sac may be found in the ampulla or isthmus of the tube or in the uterine cornu. The latter is quite infrequently found. If the sac is not extruded through the fimbriated extremity, the musculature, though hypertrophied, eventually ruptures and the sac is thrown into the abdominal cavity. This is called tubal rupture. The sac may be extruded through the fimbria and produce a tubal abortion or it may be forced into the uterine cavity and a normal pregnancy develop. The symptoms are: delayed menses, sudden onset of abdominal pain, bloody vaginal discharge, only slight fever, exacerbations of pain, enlargement or mass and sudden collapse. The blood count will show between 10,000 and 15,000 white cells. Most cases are atypical in their symptomatology. If a woman goes 5 to 18 days past her usual menstrual period and then has irregular vaginal bleeding, extra-uterine pregnancy should be suspected. The attacks of pain may come on frequently or at long intervals. In palpating for masses, gentleness should be used, as it is easy to rupture the sac and produce a hemorrhage.

The differential diagnosis from salpingitis is determined by a difference in the menstrual history. In salpingitis, bleeding comes on before the usual period, while in ectopic it comes on after the regular time of flow. Long periods of sterility frequently precede tubal pregnancy and the fever is higher in salpingitis. The relation between the pulse and blood pressure is not disturbed in salpingitis. In incomplete abortion the cervix is open, in ectopic it is closed.

Ectopic pregnancy should be classified as follows: (1) Early intraperitoneal rupture and pelvic hematoma. Early abortion. The pulse and blood pressure equilibrium is maintained. (2) This forms the largest group. Repeated moderate hemorrhage. The membrane is still attached within the tube, the extruded embryo grows. This is the late type of tubal abortion. The pulse is high and the blood pressure is low.

The blood clots irritate the peritoneum, producing an exudate followed by adhesions which may become organized. Later there may be a sudden escape of blood from the ruptured tubal wall. (3) The embryo develops to a large size followed by a sudden rupturing of the tubal wall with a profuse hemorrhage. The pulse is very rapid and the blood pressure down to 50 mm. These are the emergent cases which require immediate treatment. (4) The tube ruptures between the layers of the broad ligament. The tension produced eventually arrests the hemorrhage. (5) This type is quite rare. The rupture takes place into the uterus and the interstitial form of ectopic develops. (6) There is an early escape of the embryo with but little hemorrhage. The embryo may become attached and grow to form an abdominal pregnancy or it may form a lithopedion or adipocere. There were 11 such cases out of 35,000 pregnancies studied at the New York Lying-In Hospital.

Dr. Donnreuther further stated that it is better to operate in 10 cases and find wrong diagnosis than to delay too long in 1 case of Group 3. The treatment should, as a rule, consist of some supportive measures for shock until the blood pressure has reached 100 mm., taken at half hourly intervals. If there is no increase in blood pressure within one-half hour, operation should be attempted at once. Enough blood should be removed to visualize the bleeding point and clamp it. He does not advise wiping out the blood clots or pouring saline or other solutions into the abdomen, as these are better administered by hypodermoclysis or intravenous injections.

Drs. Dickinson, Kelly, Spence, McLoughlin, Miner, Cosgrove, and Friele took part in the discussion which was closed by Dr. Donnreuther.

#### Osler Clinical Society.

M. I. Marshak, M.D., Reporter.

The Osler Clinical Society met January 19, 1927, at the Union League Club, with Dr. Jaffin presiding. In the absence of the Secretary, Dr. Perlberg, Dr. Marshak acted pro tem.

Dr. Von Deesten reported a case of postural cough. He described the case and concluded with the following summary: (1) The clinical history was suggestive of a periodic emptying of pus into a bronchus. (2) The recumbent posture evidently favored drainage. (3) The negative x-ray plate of the lung with slight elevation of the diaphragm pointed toward subphrenic pathology. (4) The tenderness over the left lower ribs and lumbar region, together with a slight lumbar fullness, suggested a perirenal involvement. (5) Recumbent posture cough with purulent expectoration is diagnostic of a rupture of a perinephritic or other subphrenic abscess into a bronchus, when no pulmonary pathology is demonstrable. He suggested that a lipiodol injection into the bronchi followed by an x-ray examination might have outlined the fistula in this case. Drs. Marshak, Bartone and Jaffin took part in the discussion.

Dr. Joseph I. Berlin read the paper of the evening on Paranasal Sinusitis in Infants and Young Children.

In the embryo, nasal sinuses are invaginations of the nasal mucosa into the various antra. The sphenoidal sinus has a capacity of 6 to 8 c.c. at birth. It grows slowly until 3 years, then more rapidly and at 10 years is, as a rule, of adult size. There may be one or more frontal cells

on either side. At birth they cannot be distinguished from the anterior ethmoidal cells. They usually start to form definitely in the second year and have a clinical significance at about 5 years. The maxillary sinuses are rarely absent at birth and average 7-8 m.m. in length, 4-6 m.m. in height, and 6-8 m.m. in width. In infants and young children, the floor of these sinuses is on the level with the point of insertion of the inferior turbinate. The point of election for puncture at these ages must therefore be in the middle meatus. After the eighth year the floor is on the level with the inferior meatus. The posterior ethmoid cells are larger than the anterior cells. Sinusitis is common in changeable climates and not so frequent during the summer months. He cited a number of cases to show what effect sinus disease had on the persistence of arthritis, infection following cleft palate operations and various respiratory disorders.

**Etiology:** These conditions are most frequently due to adenoids and diseased tonsils, also acute infectious diseases, especially influenza. They may be secondary to infections of the upper respiratory tract. Extension from infected teeth is rare because the antral floor is quite thick.

**Pathology:** The marked difference between adult and childhood sinusitis is due to the fact that in children the bones are soft and more cancellous. Acute empyema of the sinuses may terminate in restoration, chronicity, or bone caries. Increased activity of the mucous cells is nearly always present. Complications consist of acute osteomyelitis of the bone surrounding the sinus with abscess affecting the soft parts; meningitis; eye suppurations and brain abscess. Bronchitis and laryngitis are not infrequent.

**Symptoms:** Nasal discharge with nasal obstruction; pus present in the meatus after being wiped away; sneezing, especially in infants; some fever and headache and pain. Pressure over the sinus shows tenderness. There is also listlessness, poor appetite and poor color, persisting after tonsillectomy.

**Examination and Diagnosis:** Rhinoscopy is often impossible. Transillumination is unsatisfactory in children. The x-ray study is the most important. The nasal pharyngoscope gives some valuable information. Examination must be frequently repeated. Aspiration, sounding and cultures are often necessary. These examinations may have to be done under general anesthesia. The prognosis in these cases when recognized is good.

**Treatment:** In acute cases, a purge and local spray is all that is necessary. Care must be taken never to douche the nose with the head in an upright position, to prevent middle ear diseases. In chronic cases a fresh air regimen must be instituted during the period of treatment. The tonsil and adenoid operation will often clear up these cases. A warm dry climate is of value. Vaccine therapy may be successful. Alternate negative and positive pressure is at times useful. Ventilation and drainage may be necessary, but in ethmoid, sphenoid and frontal sinus disease, should be used only as a last resort. If fistulas are present, a more extensive type of operation may be necessary.

Drs. Rosenstein, Lupin, Neimeyer, Von Deesten, Camorra, Binder, Nalitt and Jaffin discussed the paper, the discussion being closed by Dr. Berlin.



**HUNTERDON COUNTY.**

Leon T. Salmon, M.D., Reporter.

The first meeting of the county society under its new schedule of quarterly instead of semi-annual meetings was held Tuesday, January 25, in Frenchtown, with Dr. L. C. Williams presiding. The percentage of attendance was about the usual average—not improved by the change in this first, instance at least. The society has never held a more successful and satisfactory meeting, in respect to the program, the discussions of clinical subjects, nor the dinner which followed. Those who were absent may well count themselves unfortunate in having missed such a delightful event, and their attention is hereby drawn to the fact that the next gathering is scheduled for the third Tuesday in April.

The scientific program embraced the following items: (1) An unusual case of Shoulder Dislocation, reported by G. B. Tompkins, (2) Roentgenograms of a Pulmonary Neoplasia that Disappeared after Radiation, exhibited by S. B. English. (3) Informal Discussion of the Cause, Course and Treatment of Asthma and Allied Conditions, introduced by L. T. Salmon. (4) Periodic Health Examinations, with Moving Picture Description of Technic, by Henry O. Reik.

A special committee, consisting of Drs. Williams and Salmon, reported the following resolutions on the death of Dr. George N. Best, which were unanimously adopted:

"WHEREAS, Providence has removed from our midst our friend and co-worker, Dr. George N. Best, and

WHEREAS, the profound sense of his loss as an active worker in the Society looms before us, and

WHEREAS, our most distinguished friend and member represented the best and highest possible ideals of the Society and its objects, therefore be it

RESOLVED, that we sorrowfully express our loss in his death, acknowledging his long and useful career and his helpfulness upon all occasions when he was called upon to give us the results of his long experience and fine training; and be it further

RESOLVED, that we make this expression as public as possible in the medical world, acquainting his immediate family, the State Medical Society and the American Medical Society, by these resolutions, with our profound sorrow."

A really remarkable dinner was served at the famous Warford Hotel, and somewhere about the twelfth or thirteenth course the last member was compelled to cry "Hold, enough", lest he be damned by over-feeding.

**MERCER COUNTY.**

A. D. Hutchinson, M.D., Reporter.

The Society met in the Carteret Club January 12, at 8:30 p. m. The usual order of business was suspended and the President, Dr. John B. Sill, introduced the speaker of the evening, Brooke M. Anspach, M.D., of Jefferson College, who took as his subject, "Some Generally Overlooked Causes for Abdominal and Pelvic Pain with Reference, Especially to Operative Treatment."

Dr. Anspach brought out many of the salient symptoms of pain in the abdomen and pelvic region, so often treated as unimportant or irrelevant. Muscular tenderness, both superficial and deep, as indicative of visceral or of simple

nerve involvement was most thoroughly depicted by Dr. Anspach.

The subject was enthusiastically discussed by several of the members, after which Dr. Anspach closed with many good words of advice.

The minutes of the previous meeting were read and approved. Dr. Sill appointed on the Program Committee Drs. Scammell, Bellis and Seibert; on the Membership Committee Drs. Slack, H. D. Williams and Purcell. Following a luncheon the Society adjourned.

**MONMOUTH COUNTY.**

F. J. Altschul, M.D., Reporter.

The regular monthly meeting of the Monmouth County Medical Society was held at the Garfield Grant Hotel, Long Branch, Wednesday evening, January 26. The President, Dr. H. B. Garrison, of Red Bank, presiding. About 40 members present.

Dr. E. Glazer, of Asbury Park, was admitted to membership. The question of admitting physicians, doing, for example, pathologic work, but not practicing and not registered in New Jersey, to associate or honorary membership was brought up and it was decided to refer the matter to the State Society.

After the business meeting, the President introduced the speaker of the evening, Dr. L. K. McCafferty, of New York, who is Consulting Dermatologist to the Monmouth Memorial Hospital, Long Branch. The topic of his paper was "A Lantern Slide Demonstration of the Common Dermatoses". Dr. McCafferty discussed only the skin diseases most likely to be encountered by the general practitioner, laying particular emphasis on the erythema group and syphilis. He emphasized the importance of studying the patient's general condition. A thorough physical examination and complete history, he said, were just as important in diagnosis and treating dermatologic as other disorders. In discussing the treatment of the dermatoses, he was very practical and mentioned only those measures which have proved their worth. The lantern slides were numerous and very much admired. One of them in particular (a face and neck study), caused quite a commotion, for it showed a striking resemblance to ye scribe. Fortunately, however, diagnosis of the affection of this embarrassing "double", proved to be erythema multiforme, much to the disappointment of those present.

Many questions were asked, and many members joined in a discussion of Dr. McCafferty's very interesting and instructive paper.

After adjournment, a buffet supper was served.

**PASSAIC COUNTY.**

Donald R. Low, M.D., Reporter.

The regular monthly meeting of the Passaic County Medical Society was held at the Health Center Building, Paterson, January 10. Dr. O. R. Hagen presided, and there were 40 members present.

Dr. M. Joseph Mandelbaum, of New York City, read a very interesting paper on "Bronchography, its Present Status and Future Promise". The paper was accompanied by both motion pictures and stereopticon views, and was discussed by Drs. Atkinson and Roemer.

Dr. Hans Wassing, of Paterson, read a paper on "Agglutination Paradox in the Widal Test for Typhoid Fever". Discussed by Dr. Gay Bon Kim.

Dr. Lee, Health Officer of Paterson, explained the new visiting nurse system to be used in this city, and the system was highly endorsed by the society.

Drs. Morris L. Simon, of Passaic; Thomas D. Van Orden, of Pompton; and James R. Lomauro, of Passaic; were elected to membership.

### WARREN COUNTY.

F. A. Shimer, M. D., Reporter.

The quarterly meeting of the Warren County Medical Society was held Tuesday, January 11, 1927, at the Washington Club, Washington, New Jersey, at 11 a. m., Dr. Russel B. Stone, president, in the chair. Eleven members were present. Dr. Paul F. Drake, of Phillipsburg, New Jersey, was elected to membership in the society. A resolution to increase the yearly dues was adopted. Dr. L. H. Bloom reported actions of the Welfare Committee at Trenton, New Jersey. Dr. Henry O. Reik gave a very interesting lecture and moving picture demonstration on "Health Examinations". Dinner was served at the Baker Inn.

### UNION COUNTY.

Russell A. Shirrefs, M.D., Reporter.

A largely attended regular meeting of the Society was held at the Elizabeth General Hospital on the evening of January 12, with President George Orton in the chair. Reading of the minutes and other routine business was followed by the election of 8 new members: Drs. Arch. M. Paulson, Thos. S. P. Fitch and C. de Freitas of Plainfield; Leo H. Salvati, Westfield; Ronald J. Walsh, Roselle; H. V. Connerty, Linden; Louis H. Chaiken and Jack Blumberg, of Elizabeth, the latter transferring his membership from Ulster County, N. Y. There were proposed for admission Drs. Stuart, Cardinelli, Ripps, Disbrow and Gollick, whose applications will be acted on at the next meeting.

Dr. H. O. Reik gave an interesting account of the recent activities of the State Society, the remarkable growth of the Journal, and made several valuable suggestions to which our County Society might give consideration. Dr. Reik concluded his address by a helpful talk on the subject of "Periodic Health Examinations", the technic of conducting which was well exemplified by a moving picture. A social hour, during which a collation was served by the Ladies' Aid Society, added to the pleasure of the evening.

### Summit Medical Society.

William J. Lamson, M.D., Secretary.

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines, Wednesday, January 26, 1927, at 8:30 p. m., with the President, Dr. Keeney, in the chair, and Dr. Byington as host. Despite zero weather the attendance was good, the following being present: Drs. Bensley, Bowles, Burritt, Byington, Campbell, Clark, Disbrow, Falvello, Hallock, Johnston, Keeney, Lamson, Meeker, Milligan, Morris, Pollard, Prout, Smalley, Tator, Tidaback and Wolfe, and Drs. Larrabee and Thomas of Summit, and Dr. Smith of Morristown as guests. Minutes read, and approved.

The Committee on Periodic Health Examinations, appointed at the last meeting, consisting of Drs. Lamson (Chairman), Byington, Dengler, Reiter and Keeney made its report as follows:

Your Committee recommends:

(1) That cards be printed for distribution to patients, calling attention to the importance of such examinations, and worded about as follows:

"The Summit Medical Society, following the recommendations of the American Medical Association, has gone on record as favoring Periodic Health Examinations. The importance of such examinations has been emphasized by the leading Life Insurance Companies as a means of prolonging life.

"Your physician is ready to give you a thorough and complete examination, by special appointment, and to advise you how to correct any defects or tendencies which may impair your health."

(2) That the "blank" provided by the Medical Society of N. J. be used, and that a report of findings, in writing, be given to each patient so examined.

(3) That follow-up notices for re-examination be sent to patient at suitable intervals.

(4) That articles on this subject be provided for the local press from time to time.

The address of the evening was given by Dr. Henry O. Reik, of Atlantic City, Executive Secretary of the State Society. He spoke on the value to the profession of an active and informing State Medical Journal, and the importance of keeping in touch with legislation affecting medical matters, such as the Sheppard-Towner Bill, Narcotic Bill, irregular cults, etc.

He then took up the matter of "Periodic Health Examinations", which should not be considered an emergency matter, nor a routine of office work, but which should be made a special thing, and arranged for by special appointments, as a careful examination, with complete history, will require about an hour. Some county societies have set a minimum fee of \$10 for such an examination, but the maximum charge should be left to the individual examiner. This work is largely in the hands of commercial institutions, and may easily become the field of exploitation for charlatans. It rightly belongs to the family physician, who must retrieve it from these other channels. It is desirable to acquire a certain definite technic in order to insure thoroughness and conserve time, and a moving picture was shown, illustrating how such an examination may be made.

At the close of Dr. Reik's remarks, Dr. Byington moved that a short talk be given at each meeting on the relation of blood-pressure, overweight, etc. to longevity, by some member versed in the subject from an insurance standpoint.

The Secretary was directed to purchase sufficient of the State Society Blanks to meet the requirements of the members of the Society.

After refreshments, the Society adjourned.

### Westfield Medical Society.

Richard G. Savoye, M. D., Reporter.

The 178th regular meeting of this society was held January 13, 1927, at the home of Dr. L. H. Leggett. In the absence of President J. B. Harrison, who was called to the bedside of his brother-in-law in Mobile, Alabama, Vice-President R. G. Savoye presided.

The usual routine of business was quickly dispatched. Under new business, the resolution recently passed by the Town Council, regulating the



use of the Town Ambulance, was read and brought out a lively and heated discussion. None of the members seemed willing to be charged with the fees for the use of the vehicle. A resolution was adopted and a committee appointed to discuss and adjust the matter.

Dr. M. E. Ramsey read a very interesting and instructive paper on "Diathermy". A general discussion followed a vote of thanks to the doctor for his valuable paper.

After a social hour and refreshments, a vote of thanks was extended to Dr. and Mrs. Leggett.

## Special Society Report

### New Jersey Sanitary Association.

#### Abstract Report of Proceedings.

The Fifty-second Annual Meeting of the New Jersey Sanitary Association was held at the Berkeley-Cartaret Hotel, Asbury Park, December 3 and 4, 1926, under the presidency of Louis J. Richards, Health Officer of the city of Elizabeth. The first session was called to order by the State Director of Health, Dr. Henry B. Costill, of Trenton. The invocation was delivered by Rev. David A. MacMurray, and the address of welcome by Hon. Clarence E. F. Hetrick, Mayor of Asbury Park.

Through the courtesy of Mr. C. J. Merrell, Chairman of the Society's Publication Committee, we are enabled to present our readers with the following abstract report of the papers read at this congress of sanitarians.

### REFORESTATION.

#### President's Address.

Louis J. Richards, Elizabeth, New Jersey.

Consideration of this subject from a sanitary standpoint would include its effect upon stream conservation, temperature and added or sustained amount of land for recreation.

The action of the forest in stream conservation is threefold: (1) It breaks the fall of precipitation; (2) it prevents a quick run off, allowing the rain to soak into the soil; (3) it makes the soil itself more porous, allowing a more uniform yield. It has been demonstrated by actual experiment that a forested region is several degrees warmer in winter and cooler in summer than is open country. The effect of the woods in rest-giving qualities is well known.

New Jersey contains roughly 5,000,000 acres, 2/5 of which is forest land. Approximately 400,000 acres of cleared land have been given over to agriculture, but more is abandoned each year than is cleared. This should be reforested.

Many industries are looking to timber growing as their source of raw material. As a rule, lumber companies have not replaced their cuttings but this has been done by many water and power companies who have watershed rights. The most extensive reforestation is being done by the Federal Forest Service in the national forests of the west. New York furnishes annually 23-25 million trees for reforestation its Adirondack and Catskill preserves, as well as for supplying private enterprise free of charge. Pennsylvania plants about 13 million trees annually. New Jersey contracted this year, from private sources without the state, for 1,100,000 trees for distribution at cost and for planting upon its 20,000 acres of state land. It also established at

Washington's Crossing Park, near Trenton, its own tree nursery, but this stock will not be available until 1928. In all, from 60 to 100 acres were planted by the state this year.

An outstanding example of reforestation in New Jersey is the New Jersey Zinc Company, which employs a professional forester for its 25,000 acres, which supply forest products for use in its mines. The city of East Orange started, several years ago, to practice reforestation on its 2200 acres of watershed area, as did also the city of Newark on its Pequannock watershed of perhaps 22,000 acres.

For protection against fire this state has, under the direction of the State Forester, 1 State Fire Warden, 3 Divisional Wardens, 29 Sectional Fire Wardens, 19 Fire Lookout Watchmen, 400 Local Wardens and 2300 enlisted men, who are paid only when they fight fires.

In fighting insect pests, so successful have been the control measures of our State Entomologist that the eyes of the United States have been turned upon New Jersey to determine what can be accomplished in that line.

According to a report, revised in 1925, of the New Jersey Department of Conservation and Development, more than 2/3 of the original timber resources of the United States are already exhausted—used, burned or wasted—and the remaining forests are still being depleted 4 times faster than new timber supply is being grown. The forest regions of the world are so situated, and the foreign demands on them so great, that America must always depend almost entirely upon her own timber resources. Unless the public takes immediate action to protect, conserve and perpetuate the forests of this country, a period of acute timber shortage with its resulting evils is certain to follow. Further delay will result in a real timber famine, rather than a shortage.

For several years the nation, by proclamation of the President, has observed Forest Protection Week. President Coolidge, in designating the week of April 27 to May 3, 1925, proclaimed in his closing message, "And I urge public officials, public business associations, industrial leaders, forest owners, editors, and all patriotic citizens to unite in the common task of forest conservation and renewal".

In conclusion, as it takes from 30 to 70 years to come to maturity, dependent upon the variety, soil and temperature, and as we have seen the depletion is 4 times faster than the supply, I urge upon our members to forward, by their active coöperation, any action by the state, either by legislative enactment or by support of the program of the Department of Conservation and Development, so that our own fair state may not fail in the preservation of those resources which have such a marked effect upon the health and comfort of our people.

### WATERSHED CONSERVATION.

Cornelius C. Vermeule, New York City.

The available gathering ground for potable water which, on its own merits and irrespective of possible demand, may be all equally entitled to conservation, embraces about 530 square miles on the Passaic headwaters, 880 square miles on the Raritan, 600 square miles on the upper branches of the Delaware, and 1400 square miles, in the pine region of southern New Jersey, making a total of 3410 square miles, or 2,200,000 acres, being just half of the area of the state. I do not hesitate to commit myself to the opin-

ion that even to acquire so much of this as would be essential for efficient conservation, would cost not less than \$300,000,000, and would create an annual burden in interest charges, loss of taxes and expense of over \$20,000,000. This is sufficient to show to what lengths such a policy may carry us if followed to its logical conclusion.

Another serious result of any such policy is that it will wipe out entire townships. In other cases it will seriously cripple them and the counties by taking out of their ratables part of the values on which they now assess the taxes they need for their upkeep.

It becomes evident, therefore, that we must first carefully determine what is necessary to be done, which of these watersheds will be needed within a reasonable period in the future, what is required to prevent their despoliation, and how their conservation ranks in importance with other interests and activities of the state with which it may conflict.

What then menaces our watersheds and against what should they be guarded? First and foremost, of course, comes contamination due to deleterious animal wastes. It is well known that we can legally prevent the grosser pollution by policing, by diversion or purification of sewage, and can render water safe by filtration. We must look forward to filtering all of our supplies of surface water.

Within a few years a movement of population has begun which may entirely modify our past calculations as to what should be done. The movement out from the great centers of the country, made possible by the automobile, has become very marked, and has lead to increase in the value of lands upon our northern watersheds. Such a movement should certainly not be needlessly discouraged, notwithstanding that it does conflict to a rather serious extent with keeping our watersheds in the most desirable condition for water supply purposes. A balance must, therefore, be struck, which will in some manner give due weight to both sides of the question.

The policy pursued by the city of Newark in freely purchasing lands on its Pequannock watershed has been commendable. Nevertheless conditions on the Pequannock were somewhat peculiar in that when it was taken over by Newark it was sparsely settled and lands were of relatively small value. This condition cannot now be duplicated on any of those northern watersheds that are most immediately needed for use.

The Ramapo, which should be utilized in the immediate future, has only about 20% of its catchment area within this state, but with co-operation with the state of New York we shall be able to prevent contamination of its waters.

The Hackensack also lies mostly in the state of New York, but this source of supply is being handled by a private water corporation which is filtering its supply in a thorough manner.

Jersey City obtains its supply from the Rockaway river and unquestionably has an important problem on its hands in guarding against contamination. Depopulation of this catchment area is unthinkable as it involves too much in the way of values and too much interference with human interests.

What has already been said practically covers all that is important in regard to the Passaic headwaters.

On these northern watersheds, therefore, it would appear that little more can be done to apply such restrictions as may be reasonably constitutional to prevent wilful pollution. This, with

ultimate filtration, will serve for a considerable period.

Since, as has been shown, we cannot purchase all of our available watersheds, it remains to be determined which, if any, we should purchase and when. If you will refer either to the report of the Water Policy Commission of last year, or to Governor Moore's message of last June, it will become evident to you that most of our available gathering grounds will not be needed for so many years in the future that it is certainly unwise to consider their purchase at the present time. Purchases of land by the state must be carried at not less than 4% interest, and, if we unduly increase state bond issues this rate of interest will advance. Also, either the state must pay the taxes on such property or the counties and towns must suffer the loss, and, furthermore, from such lands there will be more expense than income. Therefore, the carrying charges of any such purchases will amount to fully 7% per annum on the cost, which means that the purchase price will double itself each 10 years, and quadruple itself in 20. Not much of our watershed lands will increase in value so rapidly.

Still another danger of indiscriminate or ill advised purchases of reservoir areas and catchment areas for conservation purposes lies in the fact that no one knows definitely as yet which of them will be actually put to use within a reasonable period. The number of possible reservoir sites laid out in northern New Jersey is simply startling. Taking recent work on the Raritan alone, we find half a dozen suggested sites which will require the purchase of over 82,000 acres and yet no one has determined whether any single one of these will be used.

Such is the present status of the whole question in northern New Jersey. We neither know what we need to buy nor that it is wise to buy anywhere. We should, therefore, adopt no radical step at present. In southern New Jersey no investigation for future needs for water has yet justified purchase of watersheds. I think I should point out here that the water situation is by no means as critical as it is painted. Taking from the report of the Water Policy Commission its figures as to the capacity of the acceptable sources already in use, and excluding entirely from consideration the supply taken from Little Falls by the Passaic Consolidated Water Company, I find that we have available, as now developed, including the Wanaque, 265 million gallons daily, and that these supplies are capable of further orderly and economical development to an aggregate of 480 million gallons daily. Since the present use north of the Raritan is only 227 million gallons daily, it will be seen that need for any further watersheds lies too far in the future to warrant their purchase.

#### EXAMINATION OF FOOD HANDLERS.

M. James Fine, M. D.,

Director, Tuberculosis Division, Newark Department of Health.

Examination of food handlers has been carried on in Newark since 1920. It was started with restaurant employees and has gradually been extended until at present it includes grocers, confectioners, delicatessen store keepers and milk handlers. In view of the fact that after taking 27,000 nose and throat cultures, none were found positive, this procedure was discontinued, as was also the Widal test for typhoid.



In spite of its widely recognized benefits, we find most foreign countries and a great number of large cities in this country have no provision for examination of food handlers. The results of a questionnaire sent by the author to the principal cities of the world show that, with the exception of Moscow, very little if any effort is made at compulsory examination by paid physicians; a great majority have no examination at all, and as a result there are no statistics as to the success or failure of the venture.

A very evident conclusion that may be drawn from our own survey is that private physicians are not conscientiously contributing to the protection of the public health against food handlers who may be affected with communicable diseases. Dr. L. B. Gloyne, of Kansas City, states that of 2622 food handlers examined by paid physicians of the Board of Health, 61 cases were refused cards, while of 283 patients examined by private physicians none were found to be even suspicious cases. None of these latter cases had the benefit of sputum, Wassermann or any other kind of laboratory tests. Of 48,000 food handlers examined in New York City by private physicians, only 2 were found to be suspicious. In our experience, examinations by private physicians are so ineffective as to be almost negligible. The family doctor often feels that he cannot tell his patient to give up his job because of a suspected disease, and so is forced to conduct the examination in the most cursory way. Examination of food handlers at the clinics by paid physicians who are engaged in this particular work is beneficial to the physician and the community. First, it takes away the responsibility of rejecting the patient and a possible resultant break with the family. Second, a patient found to have a communicable disease is referred back to his private physician, which would not have been the case had there been no examination. Third, the fear of developing a communicable disease, and hence being rejected, stimulates the individual to seek periodic examinations.

The results recorded in Newark have shown that each year since 1920, there have been fewer and fewer rejections, because persons with tuberculosis and venereal disease know that no cards for employment will be issued unless they are free from communicable diseases and they therefore secure other occupations. Out of 36,246 examinations at the hands of paid health physicians, 155 active cases of tuberculosis and 45 of venereal diseases were found and rejected, and 3822 suspicious cases were reexamined. Of the 5811 food handlers examined by private physicians, not 1 suspicious case of tuberculosis was found. There were 95 temporary cards issued to individuals who had tuberculosis and venereal disease, but their condition was not active.

In the light of the results of this study the examination of food handlers seems thoroughly justified as a measure for protecting the health of the community.

In supplementing Dr. Fine's paper, Carl T. Pomeroy, Health Officer, Montclair, New Jersey, stressed the importance of including among food handlers not only employees of soda fountains but also servants in private homes. He also brought out the point that the mere spotting of a case of venereal or other disease in a food handler and kicking him out of a job without following up the poor individual with the sole intent of seeing to it that he receives proper treatment is not good preventive medicine. In Montclair, the few

food handlers who prefer to be examined by private physicians are permitted to do so when the examining physician can be approved by the department for this special work. It is possible to enforce this last requirement only when the code is so drawn as to cover this specific point.

### GOOD AIR—WHAT IT IS AND HOW TO GET IT.

Earle B. Phelps, Professor of Sanitary Science, Columbia University.

We may define good air as air suited to the physical requirement of the individual under a given set of circumstances. Without ventilation or replacement of any kind, the air of occupied enclosed places becomes vitiated and certain definite physiologic symptoms result. Not only is rebreathed air increasingly deficient in oxygen, but there is an equivalent increase in the content of carbon dioxide. It has been natural, therefore, to regard vitiation of the air, as we ordinarily experience it, as merely a partial establishment of asphyxiation. It has been found by experiment, however, that the effects of vitiation begin long before there is any serious reduction of the oxygen and that one may live and work in an atmosphere contaminated with carbon dioxide to a much higher degree than under conditions of poor ventilation, without appreciable harm.

In brief, it is now known that the physical properties of the air are all important, and that comfort and health under ordinary living and working conditions are determined primarily by the capacity of the atmospheric environment to cool the body, rather than by its capacity to support combustion or to dispose of the gaseous products of exhalation. As Professor Frederick S. Lee has said, "The problem of bad air has thus ceased to be chemical and pulmonary, and has become physical and cutaneous".

It appears desirable, therefore, to consider the physiologic requirements of the human body, especially as regards thermal relations. The body produces heat at an extremely variable rate. Taking as a convenient unit of reference the kilogram-calories per hour per square meter of body surface, this rate varies from about 35 calories during sleep, through 50 calories at rest, to 100 or more calories at hard work. In order to maintain a fairly constant internal temperature, these varying amounts of heat must be dissipated. A further variable is the temperature of the outer air. These 2 varying conditions are compensated by the temperature regulating mechanism of the body, located chiefly in the deep skin layers, and consisting of (1) a variable blood supply to the surfaces, thus changing the effective thickness of the insulating skin, and (2) a variable secretion of perspiration, which, by its evaporation, cools the outer surface.

Since the layers of air in immediate contact with the skin will quickly come to a condition of temperature equilibrium with the skin and also to a condition of saturation with aqueous vapor, heat loss from the body would cease in the absence of some air movement. A slight circulation of air about the body is always in effect owing to the tendency of the warmer and moister air to rise, but additional movement, such as that induced by fans, provides additional cooling power merely by bringing a greater volume of air into contact with the surface.

The 3 physical factors, therefore, temperature, humidity and movement of the air, determine its

cooling properties. Evaporation from the human body is evidently a controlled process and even under the assumed conditions of moderately heavy work its full physical cooling effect is not developed. Equivalent sets of physical conditions are not necessarily physiologically equivalent.

The physiologic test of feeling equally warm is not a satisfactory criterion of equivalence in air conditions. In the first place, the occupation of the individual has much to do with the sensation of equivalent cooling power. Again the clothing worn exerts a similar modifying effect, and the matter of acclimation is of great importance. For these and other reasons, many of which we perhaps have still to learn, good air conditions for occupied spaces can, for the present, be defined only in terms that have been worked out as a result of experience for the particular case in hand. Thus, for school rooms, the New York State Ventilation Commission has found by extensive investigation that a room temperature of not over 68°, with normal winter humidity, which in the heated air of the class' room is usually between 20% and 40% of saturation, and with such moderate interchange of air as can be had by the proper use of open windows, provides the optimum condition for comfort and health. For the home and office these standards are probably also satisfactory. For crowded places—theatres and auditoriums—definite provision must be made for the admission of fresh air by mechanical means, but even under these conditions and with an adequate supply of air the good effect is too often undone by overheat. It is a matter of considerable surprise to one who has not experimented with atmospheric conditions, how great an improvement may be obtained in the conditions of a poorly ventilated office or a stuffy Pullman car by merely dropping the temperature a few degrees. To a very large extent the so-called "poor ventilation" of living and working places is really the result of nothing but overheating.

In brief, then, good air is primarily cool air, with sufficient movement and replenishment with fresh air from out of doors, to provide for the normal cooling of the body.

### THE PRESENT STATUS OF RABIES IN NEW JERSEY.

J. V. Mulcahy, Chief.

Bureau of Bacteriology, New Jersey State Department of Health.

Although much has been done to reduce the incidence of rabies in some communities, its continued increase throughout the state clearly indicates the need for uniform legislation applicable to the whole state. For this purpose, Assembly Bill No. 268 was introduced at the last session of the legislature, and, after persistent efforts on the part of its sponsor, Mrs. Ebert, was finally passed by that body, but failed to be brought up for action by the Senate. The first provision of the bill made compulsory the licensing of all dogs in the state and their destruction if unlicensed. This is a very important requirement, as strict enforcement would do away with the running at large of ownerless dogs. Owners of licensed dogs were given the option of 2 essential measures: (1) to have the dog vaccinated against rabies, or (2) to certify on application for a license that the dog would be effectively muzzled when running at large. (It has been advocated that some provision should be embodied in the bill imposing some restraint on inoculated dogs when off the owner's premises.)

Other sections of the bill provided for the detention of impounded dogs for 48 hours, and their redemption by owner upon payment of a fee. Penalties for other violations of this act and means for its enforcement were also provided for.

Statistics of the Bureau of Bacteriology show that since 1917 the number of animals examined for rabies has increased from 69 to 372, and the number found to be infected with rabies, from 32 to 202. These figures by no means represent the total number of cases of rabies occurring in the state, as a number of heads of animals are examined at the city laboratory of Newark and the Hudson County laboratories in Jersey City, while others are occasionally sent to laboratories in Philadelphia, or New York, and still other animals are killed after exhibiting such marked symptoms of rabies that no laboratory examinations are deemed necessary.

During the year ending June 30, 1926, the laboratory records show that rabies has occurred in 20 of the 21 counties of the state. Those centrally located are most affected at the present time, Mercer county showing 39 rabid animals, Camden 22, Burlington 19, Middlesex 24, and Monmouth 25, the remainder being distributed through the other 15 counties.

Since May, 1926, all mail reports supplementing telegraphic reports sent out from the laboratory have included a request for information concerning persons bitten. Responses show that there have been victims of rabid dogs in 15 different counties of the state—a figure sufficiently impressive to prove that whatever legislation is urged for the control of this disease is in the interest of public protection.

During a period of 3 years prior to 1926, ten deaths from rabies occurred in persons bitten by rabid dogs. Since March, 1926, seven persons have died from this cause, 4 of these despite the fact that the Pasteur treatment was given. In 1 of these 4 cases there was a delay of 9 days before the treatment was started and death occurred before it was finished but in the remaining 3 the course of injections had been completed.

It is not possible to determine accurately the number of persons bitten during the year by rabid dogs as bites from dogs are not reportable in this state. From information at hand, it seems certain that practically all of the 202 animals found rabid by the State Laboratory had infected from 1 to 6 persons. Therefore, a conservative estimate of the number of persons obliged to undergo Pasteur treatment as the result of bites from rabid dogs in this state would be between 400 and 500. The same rabid dogs transmit the infection to other dogs and often to valuable live stock, which in turn become new foci of infection and a continued menace to individuals with whom they come in contact. It seems only reasonable to observe that if a situation causing even a fraction of the damage done by rabid dogs was occasioned by any so-called wild animal at large in the state, effective means would be at hand to cope with this condition.

### THE HEALTH DEPARTMENT AND THE HEALTH EDUCATION MOVEMENT.

C. E. Turner, C. P. H.,

Department of Biology and Public Health Massachusetts Institute of Technology.

Although preventive sanitation has nearly eliminated diseases such as typhoid fever and cholera, we still find ourselves confronted by



problems which neither preventive medicine nor preventive sanitation can solve. Common colds have not been reduced in frequency. For that complaint, as for tuberculosis, we have no specific in preventive medicine, and municipal sanitation will not materially reduce the incidence. The morbidity rate for some of the organic, degenerative, and nervous diseases is actually increasing. Millions of people are getting only a fraction of the enjoyment which should be theirs because they are half well instead of being really physically fit. All of these problems are to be met, if at all, by preventive hygiene. If we are to reduce the death rate and increase the happiness rate still further, we must provide our people with better habits, attitudes, and knowledge in the field of health. Education has become as definite a factor in health promotion as is sanitation.

Not only do we rely upon education to promote health, but we look to it as a means of increasing the quality and efficiency of health departments, as a means of promoting health as a profession. This country still suffers immeasurably because the general public has not yet become aware that public health is a distinct profession and that health departments demand the leadership of specially trained, skillful, and experienced people. The state of New Jersey has led the country in providing legislation which requires that health officers shall demonstrate a knowledge of their profession and receive official certification before undertaking to direct the health and welfare of a community. The Committee on Public Health Training and Personnel of the American Public Health Association has recommended essentially this procedure to the other states of the Union and it is to be hoped that they will follow the excellent example of New Jersey.

It will be a great day for the public health when the people of this country generally appreciate that public health administration is not politics, is not plumbing, and is not clinical medicine. When the public realizes that the sanitarian is a professionally trained person who has had instruction and experience in communicable disease control, sanitary law, epidemiology, vital statistics, municipal sanitation, public health laboratory methods, and health education, then the health departments of the country will be moved farther from politics, the positions of health officers will be more permanent, and the health department will stand beside the school department in the popular mind as a non-political and professional service to the community. We look to education for the promotion of the public health profession.

For obtaining these educational results there are 2 procedures: (1) popular health instruction, which is aimed at the whole population, and (2) health education which is a systematic procedure in the public school system. Popular health instruction may be of 3 types: (1) personal or direct, from the health officer, the public health nurse or the public health clinic; (2) opportune newspaper statements and every other form of scientifically prepared health literature which is placed in the hands of the citizen at a time when his situation makes him directly interested; (3) broadcasting, by means of pamphlets, bulletins, motion pictures and radio talks. In the health education program the teacher bears the major part of the training, but the various health specialists in the school system all contribute to building into the child's personality the proper habits, attitudes and knowledge.

In the first 4 grades the child is trained to develop certain health practices, the scientific reasons for which must of necessity remain unknown. From the fifth grade on, organized health knowledge is provided to supplement the more important training program. In the eighth grade, when the pupil is beginning to study civics more seriously he learns the problems of community health; in the ninth grade he is given some elementary physiology, and in the senior high school the basic sciences contribute still further to his health knowledge. The new and valuable element of this whole program lies in its emphasis upon the health practices of the child while he is in the habit forming stage. The department of superintendence of the National Education Association in its fourth Yearbook, states that an adequate health program in the modern school system consists of 3 types of activities: health services, physical education and health education.

What can the health officer do to advance this movement? First he will familiarize himself with health education and the whole health program. Second, he will see to it that the children in the grades that are studying community health are invited to send a deputation to the Health Department to see how it is run. He will arrange the basis of departmental relationship in such a way that the School Department and Health Department are friendly and coöperative, and he will then be in a position to help the School Department in planning its health education program. The health officer should accumulate a complete set of health education source material at the Health Department, and make it easy for this material to get into the hands of teachers. The school teachers should be put on the mailing list for news letters, bulletins and other materials which they will interpret to the coming citizens.

Here is a new and important field of public health with which every health officer should have some familiarity and in which most health officers can exert a beneficial leadership.

(To be continued in March Issue.)

### LONGING.

Oh! I want to be a vagabond,  
And wander wild and free;  
I want to pitch my tent at night  
Beneath a bonnie tree;  
I want to gaze up at the stars  
And watch the rising sun,  
Then cuddle down at last to sleep  
When the day has just begun.

I want to loiter in the woods,  
And see a fairy dell,  
And hear a tinkling waterfall,  
And find the sweet bluebell.  
I want to gather Indian pipes—  
That ghost flower white and pure;  
I want to see a sandy dune,  
And tread a windy moor.

I want to catch the perfume  
Of the wild rose and the clover,  
All carried by the gentle breeze  
Across the hills and over.  
I want to rest beneath the pines,  
Hear robins chirp with glee—  
Oh, everything is calling  
To the gypsy blood in me!

—Katherine F. Macdonald.

## In Memoriam

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WHEALTON, Aydelotte W., 1906 Pacific Avenue, Atlantic City, died at the residence of his brother-in-law, Dr. James D. Smith, of Camden, on December 13, 1926. Born at Chincoteague Island, Virginia, 48 years ago, Dr. Whealon secured his general education at Harvard and his medical degree from the University of Pennsylvania, and had practiced in Atlantic City for a number of years. For a brief time he served as surgeon on one of the ships of the New York-Panama Company, and at the South American plant of the Darieu Coal Company. He held the rank of Captain in the local Medical Company of the New Jersey National Guard.

His death resulted from an acute pleurisy and pneumonia.

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PAUL, Frederick M., 562 High Street, Newark, died December 18, 1925, after an illness of 7 weeks. He was born in Belvidere, N. J., in 1875, and after being graduated from Princeton in 1896, entered the Medical School of the University of Pennsylvania. He finished his course in 1900 and was attending surgeon at the Lankenauer Hospital in Philadelphia for more than two years.

He came to Newark in 1904 and the next year became attending surgeon at City Hospital and Newark Memorial Hospital. He held these posts until his illness.

During the World War Dr. Paul was overseas for fourteen months as a major in the Medical Corps.

He was a member of the Colonial Club of Princeton and at one time belonged to the Essex Club and the Baltusrol Country Club, but resigned these to devote more time to his practice.

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WILLIAMS, Gurney S., 101 S. Amherst Avenue, Atlantic City, was stricken with apoplexy as he was leading his command, the 112th Field Artillery, National Guard of New Jersey, in the sesqui-centennial parade at Trenton and died before arrival at the Mercer Hospital.

The physician dropped from his horse and it was at first believed that he had been killed in the fall, but a post-mortem examination revealed apoplexy as the cause of death.

Major Williams' fall was the second of the afternoon. As the section of the parade in which he rode reached Delaware View and West State Streets the physician was thrown suddenly from his mount.

The crowd gasped as they saw him go down. He insisted on remounting, however, and, although jarred by the fall, made light of the incident. Grasping the horse's reins, he sprang back into the saddle and resumed his place in the line.

For two blocks, near the turning point of the parade at Prospect Avenue and West Street, the doctor rode with his companions on the staff. Suddenly Major Williams swayed in the saddle and dropped heavily to the street.

Dr. Williams was a graduate of the University of Pennsylvania Medical School in 1895, and at one time was a police surgeon in Philadelphia. He began to practice medicine in this resort in 1905, and became a permanent resident five years later.

A keen student of military affairs, he became attached to the medical corps of the National Guard a few years later. During the war he was an officer in the Medical Reserve Corps and assigned to recruit for that service in this district.

Major Williams died with his uniform on while celebrating the anniversary of a decisive battle in his country's history, and violent though his death was, it occurred at a moment when he was giving rather striking evidence of the high patriotism and love of country that had dominated his whole life.



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## THE MISTAKEN DIAGNOSES OF GASTRIC ULCER.

JOHN B. DEEVER, M.D.,  
Philadelphia, Pa.

(Read before the Mercer County Society,  
December 8, 1926)

I am glad to speak upon the mistaken diagnoses of gastric ulcer, because the condition has so many pathologic possibilities and presents so many diagnostic uncertainties that it offers a fertile field for speculation. Its diagnosis, in the absence of positive x-ray findings, is a most doubtful one, and the difficulty of exposing it by sight and touch necessarily adds to its vagaries. Many diagnoses of gastric ulcer are made, but few are proved, and even when present the number of correct diagnoses is not many. This statement is not offered to discourage but to encourage you in your attempts to disentangle the many entanglements presented by gastric ulcer. With this by no means encouraging introduction to the subject that I have been asked to speak upon this evening, I will proceed with the discussion.

I have used the expression, "the vagaries of gastric ulcer", because the symptoms upon which the diagnosis is so often made, and yet no ulcer found at operation, may be caused by a number of lesions, such as a diseased appendix in an abnormally high position, a diseased gall-bladder, early chronic peripancratic lymphadenitis, early chronic pancreatitis, a diverticulum of the duodenum, chronic inflammation of a Meckel's diverticulum, chronic alcoholic gastritis, early Banti's disease, and

early cirrhosis of the liver. All of these and perhaps other conditions are known to have been diagnosed as ulcer.

The most common lesions of the upper intestinal tract are duodenal and gastric ulcer, the proportion of occurrences being 4 duodenal to 1 gastric. This is contrary to the old text book descriptions. This came about as the result of exclusively dead house pathology, where the dead teach the living. But since the advent of the study of the pathology of the living revealed upon the operating table, the high altar of pathology, where the living teach the living, a different picture is being presented in the descriptions of this subject in our more recent text-books.

Gastric ulcer is one of the 4 varieties of peptic ulcer, the remaining 3 being duodenal, marginal or gastrojejunal, and jejunal, the last named being very rare. It is pertinent to ask, what is peptic ulcer? I describe it as an ulcer occurring only in the alimentary tract where hydrochloric acid is normally present. Gastric ulcer is the most pernicious kind of peptic ulcer in that it is the second most common variety, that it develops more rapidly than the others, becomes more extensive, involves surrounding structures, is less likely to become stationary, and frequently is the precursor of carcinoma. As to the development of cancer there is a difference of opinion between the internist, the pathologist and the surgeon. I believe there is no doubt at all as to the relationship of the two in that the causative factor in at least 30 to 40% of cases of carcinoma of the stomach is ulcer. This has been worked out in the research laboratory of the Lankenau Clinic by our director,

Dr. Stanley P. Reimann, whom I regard as one of our best tissue pathologists. Dr. Reimann's work has been upon ulcers excised in the clinic. His findings have been confirmed in our follow-up department, now almost 6 years old, and under the able charge of Miss Annie M. Jastrow. In these 30 to 40% of cases of carcinoma engrafted on ulcer we have positive clinical and pathologic data indisputable to the practical observer.

My utterance on this relationship may strike you as being too strong, but, if anything, it is not strong enough. If we could disabuse those of our colleagues who see ulcer cases early of the belief that cancer of the stomach always starts as cancer we could save 30 to 40% of deaths from that form of malignancy. Until this can be accomplished, we surgeons must demand earlier access to patients suffering from indigestion. This has been eloquently put by my friend, that prince of abdominal surgeons, Sir Berkley Moynihan, President of the Royal College of Surgeons, England, in a recent address before the London Medical Society, in which he says: "Earlier access to patients will be one of the further advancements of surgery of the future". This relationship has been impressed upon me often and is well illustrated in the following recent experience. A man aged 47 years was admitted to Lankenau Clinic with every evidence of having a peptic ulcer. My intern and the roentgenologist made the diagnosis of duodenal ulcer. The symptoms had been present for 20 years, during which time he had had many various courses of treatment followed by intervals of relief varying from 3 to 6 months. During the last 2 years he had commenced to have constant pain, accompanied by loss of appetite, with gradual loss of weight. The fact that in the course of the disease there were periodic attacks with the sequence of food, pain, comfort and later a continuous epigastric pain, led me to venture a diagnosis of gastric ulcer having undergone change. This was proved at operation.

It is a fact that gastric ulcer shows a predilection for certain segments of the stomach, the greater number occurring on the lesser curvature not far distant from the pylorus. That gastric ulcer occurs more frequently in certain

geographic localities than in others is well known. For example, in a small hamlet of 11 families, in the Austrian Tyrol, 9 individuals carry scars from operation for ulcer. Rost explains the more common occurrences of ulcer on the lesser curvature by the fact that in the process of digestion, fluids and semisolids travel closely along the lesser curvature; and, furthermore, existence there of the thin muscular layers of the human stomach. The oblique fibers do not extend over the lesser curvature or portions of the adjoining and posterior wall. Retzius describes a free space along the lesser curvature which is converted into a groove as the oblique fibers contract, and this contraction causes the cardia and pylorus to be brought together. Waldeyer has named this the "Magenstrasse", or gastric pathway. It has been estimated that 95% of all gastric ulcers occur in this pathway. Experimentally produced ulcers of the fundus of the stomach tend to fibrose rapidly, whereas those along the lesser curvature very often form peptic ulcer.

One possible starting point for an ulcer is a small erosion due to trauma or other repeated insult, such as coarse food rapidly ingested. This last may account for the greater frequency of ulcer in the male. In the Lankenau Clinic, 4 out of every 5 patients coming to the operating table for ulcer are males. Harker gives an even proportion of 1:1 in his series of medically treated cases.

Yeno has shown that an erosion along the lesser curvature is not covered by a protective coat of mucus, so that it is in constant contact with the normal gastric juice. Pathologically, a peptic ulcer develops fairly rapidly in the early stages, then becomes chronic, and with this chronicity and slow but steady extension the chances of complications constantly increase.

Hyperacidity is often cited as a potent cause of ulcer, but the results of gastric analysis in these cases lack uniformity. Indeed we are not certain that a true hyperacidity even exists although hypersecretion is frequently present. But it suffices to say that hydrochloric acid in normal gastric concentration is not conducive to the repair of an ulcer once established. The work of Rosenow demon-



strates a relationship between focal infection and the development of ulcer. He isolated 37 different strains of streptococci from the bases of different ulcers. Monserrat maintains that alteration in gastric rhythm, if persistent, will initiate the formation of an ulcer. He furthermore believes that gastric ulcer is found in a stomach characterized by hypotonia, pyloric spasm and delayed emptying, while in the presence of a duodenal ulcer the gastric wall is hypertonic, the pylorus is patulous and a rapid emptying time is the rule. In gastric ulcer, hyperacidity is not as prominent a factor as in duodenal ulcer. Pain is the chief symptom. It comes after all meals. The earlier the pain is felt the nearer the ulcer is to the esophagus. A meal of heavy foods causes severe pain to appear earlier in gastric than in duodenal ulcer. Pain in gastric ulcer may be referred to the left of the median line, and to the back, if the ulcer involves the pancreas. The physiology of the pain may be explained as follows: The contractions of the nearly empty stomach give rise to the major part of the sensations of hunger, while in gastric and duodenal ulcers these same contractions give rise to the major portion of the ulcer pains. Now, this may sound like rank heresy to many of you who have been brought up on the simple theory of the chemical pain of gastric and duodenal ulcer. The theory is simple and easily understood, but does it square with the facts? If acid irritation of a sore on the skin gives rise to pain, then similarly acid gastric juice on the sore on the gastric or duodenal mucosa should likewise cause pain, and since we can temporarily abolish ulcer by putting alkalies into the stomach, does this not seem positive proof? But this does not close the chapter. Very few chapters in physiology or medicine are closed. When we come to examine the foundation for many generalizations, we find things, many supposedly established facts, overthrown. But, so far as we know, it is a fact that the ulcer pains may be present without gastric acidity. It is a fact that you can temporarily stop the ulcer pain by putting acid in the stomach. I am not saying that the normal contraction of the empty stomach in the region of the ulcer, where the

nerves are probably hyperexcitable, is the whole story, because in very intense ulcer exacerbations the pain is not periodic, or, if periodic, the pains are superimposed on a continuous pain. Whether this continuous pain has a chemical factor we do not know, but one element undoubtedly is a spasm of the pylorus, in which the acid gastric juice may play a rôle.

Next to pain, vomiting is the most frequent symptom, and occurs more often after the pylorus is obstructed. Pain is not present in all cases of gastric ulcer. Hemorrhage or rupture may occur in an ulcer that has never given rise to pain. The sequence of events in gastric ulcer is food, pain, comfort; while in duodenal ulcer it is pain, food, comfort, pain. Fear of food is more likely to be the case in gastric ulcer, while there is desire for food in duodenal ulcer. The severity and character of the pain vary. It may be knife like, burning, boring, aching, dragging, or merely a feeling of heavy distress. Monserrat claims that the onset of pain occurs at the height of the acid secretion as determined by gastric analysis. The pain of gastric ulcer is relieved by vomiting, while pain from duodenal ulcer is relieved by food. When the lesion develops near the crus of the diaphragm the pain may be referred to the shoulder. Where the ulcer is located at the pylorus, with loss of weight, it may be impossible to differentiate it from carcinoma. X-ray diagnosis is usually but not always correct. Much depends upon the roentgenologist. Retention, distortion, fixation by adhesions, atonia and irregularities of peristalsis indicate pathology, though not necessarily ulcer. Since there is such variation in the reports of x-ray study we use the information only as an accessory factor. To dismiss operation because the x-ray findings are negative is to lose a great opportunity and perhaps a life. The nonoperative diagnosis of gastric ulcer is made from the history, the physical and x-ray examination. The laboratory findings, chemical study of the test meal, the fractional acid test, and, if you like, the string test of Einhorn, and the gastroscopic findings, if made by an expert in the handling of the gastroscope, should also be considered.

In my experience, and in that of Sir Berkley Moynihan, x-ray and operative exposure are the two most certain means of making sure.

Assuming it possible to make the diagnosis of ulcer when the patient first seeks relief, medical treatment, rest, diet and alkalies, frequent feedings of small amounts of nourishment—in other words, the Sippy treatment—should be given. This undoubtedly gives relief in the early case before the ulcer has invaded the walls of the stomach, or infiltrated the gastrohepatic omentum, or formed an alliance with the pancreas. Assuming that after one or two courses of treatment, permanent relief is not obtained, then as I view it, the patient should be submitted to operation. Operation early, when there has been little damage to the stomach, is attended by very little if any risk, no more than is the usual abdominal operation.

When the ulcer is small and located on the lesser curvature or the anterior wall close to the lesser curvature, excision of ulcer and posterior gastro-enterostomy is the operation of choice. Where the ulcer is small and close to the lesser curvature and near the pylorus, resection of the stomach including the pylorus and the Bilioth No. 1 give good results. The latter operation, except in skilled hands, is not as free from risk as is posterior gastro-enterostomy. Where the ulcer is of any size with decidedly indurated borders, subtotal gastrectomy is the operative procedure. Very radical surgery is more strongly indicated in ulcer of the stomach than in the duodenum, on account of the greater risk of gastric ulcer undergoing carcinomatous change. In the Lankenau Clinic it has been proved by microscopic study that 35 to 40% of excised gastric ulcers have carcinoma engrafted on their bases.

That in many cases a diagnosis of ulcer is impossible is known to you all. Many patients for whom medical treatment for ulcers has been carried out for years have finally sought relief in the operating amphitheatre and no ulcer has been found.

## SOME ASPECTS OF THE PROBLEM OF HYPERTHYROIDISM.

EDWARD ROSE, M.D.,  
Philadelphia, Pa.

(Read before Middlesex County Medical Society,  
Sept. 15, 1926.)

Hyperfunction or malfunction of the thyroid, in whatever form it manifests itself, constitutes an important problem in modern medicine. Its proper diagnosis and treatment are of interest to the internist and surgeon alike, perhaps to a greater extent than any disease entity. The mortality of untreated thyrotoxicosis is not inconsiderable, but it takes an even greater toll in the years of invalidism and economic uselessness which it imposes, either directly or as a result of the cardiac damage with which it is often associated. Although its etiology remains obscure, our ideas as to the classification of the various types of hyperthyroidism and their treatment have changed considerably in recent years, and it may be of interest to familiarize ourselves with these views, whether we find them acceptable or not. It should be borne in mind that the last word has not been spoken in connection with the classification of goiters and their relations to one another; and that our present methods of treatment give results which are by no means ideal.

A popular theory of the etiology of hyperthyroidism assumes that, in response to some unknown stimulus (arriving perhaps by way of the sympathetic innervation), the thyroid is called upon to supply to the body an increased amount of its product, one constituent of which is thyroxin. The flooding of the tissues with such a secretion of abnormal (incompletely iodized) composition is supposed to occur in the syndrome known as exophthalmic goiter, with the consequent picture of nervousness, loss of weight, cardiac symptoms, vasomotor disturbance, tremor, muscular weakness, gastro-intestinal derangements, emotional instability, exophthalmos, and the other well known classical findings. Plummer believes that in pure hyperplastic toxic goiter there is no addition of the abnormal secretion



but an excessive secretion of thyroxin which produces the loss in weight, increased metabolism and tachycardia.

The thyroid vesicles show hyperplasia of the epithelial elements, the blood supply is markedly increased, and the gland enlarges. In the so-called toxic adenoma, the groups of more recently developed vesicles are thought either to produce, or stimulate the remainder of the gland to produce, an over-abundance of normal secretion, which in turn creates the well known clinical picture. With this theory in mind, intoxication from an adenomatous gland is sometimes called hyperthyroidism, as contrasted with the intoxication from a diffusely hyperplastic (exophthalmic) gland, which is known as dysthyroidism. Recent opinion in certain quarters would seem to be in opposition to the division between the types of hyperthyroidism which this theory assumes.

Although various authorities differ somewhat in their classification of thyroid diseases, the following is the one in use at the Thyroid Clinic of the University of Pennsylvania, and may be considered fairly representative and reasonably simple: (1) Simple or nontoxic goiter, (*a*) parenchymatous or (*b*) colloid; (2) simple adenoma; (3) toxic adenoma; (4) hyperplastic toxic (exophthalmic) goiter; (5) myxedema; (6) cretinism; (7) true neoplasms, including malignancy; (8) thyroiditis, including tuberculosis, syphilis, etc. Our present discussion must perforce be limited to the two varieties of toxic thyroid—the so-called exophthalmic, or hyperplastic toxic gland, and the toxic adenoma. It seems desirable at this point to register a protest against the use of the term exophthalmic goiter, which is neither accurate, consistent, nor even good English. Exophthalmos is by no means constantly associated with this type of thyroid, and indeed the characteristic syndrome may exist without ocular findings or gross enlargement of the thyroid. The term hyperplastic toxic thyroid would seem much more consistent, at least for clinical purposes.

Stimulated by the observations of Plummer, who a few years ago pointed out certain clinical differences between the types, division of toxic goiters into the toxic adenoma and hyperplastic group has found general acceptance.

Toxic symptoms in the adenomatous gland usually occur after 40, and seldom before 30 years of age; the patient usually gives a history of having had a nodular or irregularly enlarged thyroid for some years before toxic symptoms appeared. These symptoms may be identical in all respects with those seen in the so-called exophthalmic goiter; analysis of large numbers of cases, however, has shown a greater tendency toward steady progress of the disease, without the remissions characteristic of the hyperplastic toxic type. Toxic adenomas are more frequently associated with cardiac degenerative changes, and exophthalmos is less often seen than in hyperplastic toxic goiter. Often, despite marked evidences of toxicity and serious cardiac incompetence, one is surprised by the comparative mildness of the nervous symptoms and the slight vasomotor disturbance.

Occasionally an adenomatous thyroid causing toxic symptoms may be of the hyperplastic type in its nonadenomatous parts, and the adenomatous tissue presumably innocent. Likewise all parts of an adenomatous gland may function in producing the picture of thyrotoxicosis. It is well to note the recent tendency to minimize the distinction between the different types of toxic goiter. Recent observations on the similarity of the effect of iodine administration in the two varieties may be construed by some as further argument in favor of abolishing the distinction. It is perhaps wiser at present to continue to concede the division, retaining open minds for whatever developments, clinical or pathologic, the future may bring.

We are often called upon to decide whether a given patient has a simple or a toxic goiter, and such a decision is obviously an important one, as upon it depend both prognosis and treatment. Such a differential diagnosis is often necessary in adolescents or young adults, and the question usually lies between simple colloid goiter and the hyperplastic type, as toxic adenomas are rare at these ages. The cardinal signs and symptoms of toxicity do not require repetition at this point. Not infrequently simple colloid goiters are associated with enough of these symptoms to make diagnosis very difficult—palpitation, tachycardia,

flushing, sweating, nervous and emotional instability, tremors, muscular weakness, and even moderate loss of weight. Whether such a syndrome is the result of neurocirculatory asthenia occurring purely coincidentally with a simple goiter, or whether, as Martin of New Haven has recently suggested, both the goiter and the symptom complex are manifestations of an iodine deficiency in the body in some instances, is open to question. Martin reported a series of children and adolescents with goiters and symptoms of early hyperthyroidism, but without elevation of the basal metabolic rate, in whom disappearance of symptoms followed iodine administration.

In our experience the most reliable criteria in differentiating between simple and early toxic goiter are: (1) elevation of the basal metabolic rate consistently above 15% plus, and (2) persistence of tachycardia during sleep, or after a few days rest in bed. Relief of symptoms following carefully observed iodine administration points to toxicity, provided the elevation of basal metabolism has been in accord with such a diagnosis; indeed, such a therapeutic test has been of value in a number of cases in our wards. Increased basal metabolism has generally been accepted as the most reliable finding in hyperthyroidism, but not a few cases may show little or no such elevation at various periods during their courses, even though other findings exist sufficient to make the diagnosis unquestionable. Conversely, the metabolic rate may be increased, transiently or for prolonged periods, in highly neurotic individuals, certain febrile states, and possibly in some cases of essential hypertension. It is clear then, that there is no one clinical or physiologic abnormality sufficient to warrant a diagnosis of hyperthyroidism; and that such a diagnosis can often only be made after careful analysis of data and prolonged observation of the patient.

The occasional occurrence of hyperthyroidism without gross enlargement of the thyroid or exophthalmos sometimes makes difficult the differentiation between early thyrotoxicosis and early pulmonary tuberculosis. Moderate intermittent fever (which is not uncommon in pure hyperthyroidism), tachycardia, vasomo-

tor instability, nervousness, disturbed gastrointestinal function, and loss of weight are findings common to both conditions. Careful physical and roentgenologic examination of the chest, and, when possible, repeated sputum examinations, are of course important in arriving at a diagnosis.

Where any doubt exists as to the presence of hyperthyroidism the patient should be placed at rest, preferably in a hospital, and the progress of symptoms, changes in the pulse rate and basal metabolism, and variations in weight, carefully noted.

The treatment of hyperthyroidism at the present time presents a number of aspects, and involves the offices of the internist, the radiologist and the surgeon at different times and in different cases. Each case must be considered unto itself, and it is easy to perceive the impracticability of stating hard and fast therapeutic rules. Opinions differ in various clinics as to the comparative efficacy of symptomatic medical treatment, radiation, and the various surgical procedures. A certain proportion of cases of hyperplastic toxic goiter will undoubtedly attain to a reasonably satisfactory degree of improvement if treated only by the removal of focal infection, prolonged rest, and the alleviation of specific symptoms. However, such a course involves the loss of much time and economic usefulness, besides the uncertainty of result and the risk to the patient's life. In view of the better results obtainable by other methods of treatment such a course is unjustifiable at the present time, unless insuperable obstacles to radiation or surgery exist.

The use of x-ray therapy has been largely abandoned in most clinics save as an occasional preoperative measure or in cases which are considered unsafe surgical risks. It should be noted, however, that Sanger has recently reported 82% of complete recoveries in a series of 50 patients with hyperplastic toxic goiter treated by x-rays at the Presbyterian Hospital in New York. Our experience does not coincide with this. Recently considerable attention has been focussed on the results obtained from radium therapy. With the coöperation of Dr. H. K. Pancoast and Dr. E. P. Pen-



dergrass, of the Department of Roentgenology at the University Hospital, we have been treating selected cases in this way for the past 8 or 9 months (the first cases so treated in our hospital were in 1915). Up to the present, 25 cases have been treated, some with striking results. We do not feel, however, that sufficient time has elapsed nor have enough cases been observed to permit conclusions to be drawn; this treatment must remain for the present sub judice.

Surgery remains the method of choice in the treatment of frank hyperthyroidism of moderate or marked severity. This does not mean that every case should be passed to the surgeon as soon as a diagnosis is made. The co-operation of the internist is in every case highly desirable, and many patients must receive prolonged medical care, either for the treatment of complications or in preparation for the stress and strain of operation. As in many other conditions amenable to surgery, there is an optimal time to strike, and the ability to select this moment is a reflection of the clinical acumen of the physician in charge. I do not feel qualified to speak particularly of the surgical treatment of hyperthyroidism, especially in the presence of Dr. Bothe, who has followed so many cases at the Mayo Clinic.

Our present plan of treatment at the Thyroid Clinic of the University Hospital is to refer all cases of hyperthyroidism into the hospital, after conference between the medical and surgical representatives in the Clinic. Focal infection is routinely searched for, and eliminated if no contraindication exists. It is often considered inadvisable to remove focal infection where it is not obviously doing harm and where the patient shows marked nervous instability which is apt to flare up into a thyroid crisis on slight provocation. If medical complications exist, or prolonged rest seems necessary, the patients are sent into the medical division; otherwise they are admitted directly to the surgical wards. In addition to the routine blood count, urinalysis, phenolphthalein and Wassermann tests which are usually done in the clinic, blood typing is done, and x-ray plates of the chest are made to determine the presence of substernal thyroid extension or persistent thymus. Basal metabolic

readings are taken as often as necessary to check up on the patient's progress, and direct laryngoscopic examinations are made to determine the condition of the larynx. Those cases which are considered good operative risks are kept in the wards for 3 to 5 days before operation. Every case is seen daily by the medical consultant until convalescence is well under way, and after discharge the patients are followed up at varying intervals through the agency of the clinic. This rather sketchily outlined plan is being modified somewhat at present by the employment of radium in the treatment of selected cases.

The reintroduction by Plummer of the use of iodine in hyperplastic toxic goiter marked a great advance in the preoperative treatment of this condition, and has eliminated to a large extent the necessity for preliminary ligation of the superior thyroid vessels. The iodine is given usually as Lugol's solution, in doses of 3 to 15 or more min. from 1 to 4 times daily, depending on the severity of the intoxication and the need for its immediate reduction. The effect in most cases is manifest in a few days to a week—the pulse rate declines, the violent heart action subsides, nausea and vomiting, if present, are often relieved, the basal metabolic rate is markedly lowered; often the thyroid is reduced in size, its pulsation diminishes, and murmurs previously heard over the enlarged lobes becomes less audible. However, such beneficial effect is not permanent, and even if the iodine is continued the metabolic rate usually begins to climb again after 3 or 4 weeks, the other evidences of intoxication recur, and the patient is soon in almost as bad a condition as before. With each successive iodization, if there is occasion to repeat it, the improvement is less marked and lasting. Iodine is perhaps our greatest ally in treating the acute storms or crises of intoxication, which occur at times spontaneously, or immediately after operation. At such times there is a violent exacerbation of all symptoms, often with active psychosis or mania, profuse sweating, tremendous tachycardia, high fever, and usually terminal collapse and death. In these cases iodine should be given in large doses (15-30 min. every 3 or 4 hours); rectal administration may be necessary if there is nau-

sea or vomiting. Sedatives, ice packs, copious administration of fluids, and at times transfusion of blood are other therapeutic weapons. The suggested use of thyroxin intravenously remains as yet under question.

For some time the use of iodine was not considered advisable in cases of toxic adenoma, as it was thought to aggravate the intoxication. Recent observations indicate that there may be little if any difference in the reaction of the two types of hyperthyroidism to iodine. Certain cases in each group will not be benefited, or will even be made worse by it. Iodine is now used in our clinic for both types, both before and for a time after operation. Lack of time prevents any discussion of the use of iodine in nontoxic enlargements of the thyroid, except to say that it appears to be contraindicated in simple adenoma; and that iodine-induced hyperthyroidism is a very definite entity, always to be borne in mind when administering iodine for simple goiter. No patient receiving iodine in any form should go for a longer period than 2 weeks without careful observation for the appearance of early symptoms of intoxication.

The most important medical complication of thyrotoxicosis is the occurrence of functional or organic cardiac derangement. The manner in which the heart is affected remains uncertain—some have thought that the thyroid secretion acts directly upon the myocardium, others that the damage results from excessive stimulation of the cardiac mechanism through the sympathetics, or from the abdominal demands made upon the heart by the increased metabolism of all the body tissues. Actual degenerative changes in the heart muscle are not always found, even where there has been profound cardiac incompetence during life. We are still further puzzled by the frequency with which arrhythmias occur long before there is any evidence of circulatory incompetence, and by the complete and permanent disappearance of marked cardiac dysfunction after successful operation. Cardiac disorders seem to occur more frequently in toxic adenomas; they may be confined to transient or established arrhythmia (most often auricular fibrillation, occasionally paroxysmal tachycardia, extrasystoles, auricular flutter, or partial heart block)

but often progress to the stage where hypertrophy is clinically demonstrable, or cardiac failure of varying degree supervenes. Dr. C. C. Wolferth and I have recently reviewed the records of 201 consecutive admissions of patients with all types of thyroid disease to the surgical service of Dr. C. H. Frazier at the University Hospital. Among these 18 presented sufficient evidence of heart disease to warrant special medical care. All of these patients were operated on. Fifteen survived and 3 died, only two of the deaths, however, being attributable to heart failure. Congestive heart failure was not noted in any instance, the 2 deaths being due to general circulatory collapse. We observed that digitalis was of no apparent value in reducing the ventricular rate in cases with normal rhythm, nor did it prevent the occurrence of paroxysmal fibrillation. It does, however, have a tendency to control the ventricular rate during fibrillation. Some thyrotoxic patients exhibit a marked tolerance to digitalis—one of our patients received a total of 4.5 gm. (67 gr.) powdered digitalis in 19 days without any evidence of toxic digitalis effect. Iodine appeared to exert distinctly beneficial effect in these cases, probably by lowering the metabolic rate and thus decreasing the demands upon the heart from the overactive tissues. Cardiac failure in our cases was associated in most instances with auricular fibrillation. By prolonged careful treatment, consisting of absolute rest, sedatives as required, digitalis in selected cases (chiefly useful when fibrillation is present), restriction of fluid intake when extensive edema is present, and high caloric feeding thereafter, and the judicious use of iodine, the patient can often be brought to the point where operation may be safely and successfully performed.

The rôle of the internist is by no means limited to the management of cardiac complications; he must often decide with the surgeon when the optimal time for operation has been reached; focal infection must be sought out and removed if feasible; incidental complicating conditions sometimes alter the clinical picture and require modification of the therapeutic plans; and postoperative complications are often within the province of the



clinician. Of the latter group, pulmonary infections are the most common.

In review, the following points require emphasis: (1) Although plausible theories are advanced, the physiologic mechanism of hyperthyroidism remains obscure; hence our treatment must remain to a degree empirical. (2) Hyperthyroidism is neither a medical nor a surgical condition exclusively, but coöperation of the internist, surgeon, radiologist and laryngologist are essential for the proper handling of the patient. (3) Surgery remains the method of choice in the treatment of most cases, although the functional results obtained from operation are often far from ideal.

### SOME SURGICAL ASPECTS OF HYPERTHYROIDISM.

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(Read before the Middlesex County Medical Society,  
September 15, 1926.)

The progress of surgery in hyperthyroidism has been very marked, and thyroidectomy in cases complicated with hyperthyroidism is not looked upon as such a hazardous procedure as it once was. The most important factors, excluding refinement in operative technic, in our advance in this field are: (1) The combined management of these cases by the internist and the surgeon; (2) the clearer understanding of the indications for iodine therapy and the establishment of a firmer basis for such therapy; (3) the more general use of local anesthesia.

Though only cases with hyperthyroidism will be considered I would like briefly to present the classification of diseases of the thyroid gland made by Plummer and Boothby at the Mayo Clinic in 1911. This seems to be most practical, from the surgical aspect, and is as follows: (1) Diffuse colloid goiter; (2) adenomatous goiter without hyperthyroidism; (3) adenomatous goiter with hyperthyroidism; (4) exophthalmic goiter; (5) myxedema; (6) cretinism; (7) myxedema of childhood; (8) thyroiditis, and (9) malignancy. From this classification, we are particularly interested in

the adenomatous goiter with hyperthyroidism and exophthalmic goiter.

It was not until relatively recent years that we realized that an adenomatous goiter with hyperthyroidism is quite different from the true exophthalmic type. Frequently an adenomatous goiter is present for many years without any evidence of toxicity or obstructive symptoms and for these reasons the patients postpone operation. The toxic symptoms develop very insidiously but are progressive; in exophthalmic goiter there are definite crises with intermittent remissions of partial, or at times complete, relief from symptoms. In addition, patients having a toxic adenoma develop symptoms referable to the cardiovascular system and do not have the exophthalmos, or the gastro-intestinal symptoms of nausea, vomiting and diarrhea so characteristic of exophthalmic goiter. One cannot tell when a nontoxic adenoma will become toxic or one of mild toxicity will develop severe toxic symptoms. Because of these possibilities and the insidious onset of toxic symptoms, an adenomatous goiter is a surgical condition.

In 1912, Plummer pointed out that the physiologic status of the patient with an adenomatous goiter with hyperthyroidism was different from that of the patient with exophthalmic goiter. He believes that secretion of the thyroid gland in cases of adenomatous goiter with hyperthyroidism is excessive in quantity but normal in quality, whereas in exophthalmic goiter it is abnormal in quality as well as quantity. Hence he speaks of an adenomatous goiter with hyperthyroidism as pure hyperthyroidism, and exophthalmic goiter as dysthyroidism. These beliefs are borne out by the physiologic effect of Lugol's solution upon the two conditions.

Adolescent goiter is of particular significance to the surgeon as it is often a borderline case for medical or surgical treatment. In most instances it is of the diffuse colloid type and responds very favorably to medical treatment. Sometimes the patients exhibit symptoms which would make one think these goiters were mildly toxic, as complications of a psychoneurosis or effort syndrome are not at all infrequent. A careful basal metabolic study

and treatment with thyroxin or thyroid extract is very valuable in making the diagnosis clear. Sometimes a gland which was thought to be a diffuse colloid goiter becomes so reduced in size under medical treatment that adenomas become palpable which had not been so previously. When adenomas are found, as will be discussed later, whether they manifest any evidence of toxicity or not, the treatment is surgical.

The combined efforts of the internist and surgeon, in the management of cases of hyperthyroidism, has been very helpful in reducing the operative mortality. A thorough preoperative study can be made, basal metabolic studies carried out and iodine therapy instituted where it is indicated. With this mutual aid the best time for operation can be chosen and postoperative complications can be dealt with more satisfactorily.

The use of iodine as a therapeutic measure in the treatment of goiter has been known for many years but it was not until recent years that its indications and use were placed on a relatively firm basis. Through the work of Plummer we know that iodine benefits cases of exophthalmic goiter, whereas prolonged administration of iodine makes adenomatous goiters with hyperthyroidism worse. This is in accord with the theory which Plummer advances that there is a difference in the character of the secretion in these two diseases. It is also known that some nontoxic adenomas become toxic under iodine therapy. Because of these facts the use of iodized table salt in the home may be very detrimental. In cases of true exophthalmic goiter, iodine given in the form of Lugol's solution has been of great value in reducing the mortality. It is usually given on an average of 10 min. 3 times a day, but in the very toxic cases 80-100 min. may be given in 24 hours. It is essential that the Lugol's solution should be administered the day of operation and through the period of postoperative reaction. In severe cases it is well to increase the dose at this time. One may be guided by the patient's condition and the fall in the pulse rate in administering Lugol's subsequent to operation. After the postoperative reaction has subsided Lugol's solution should be continued for sometime in small

doses. At the Mayo Clinic 10 min. daily are given for a period of 8 weeks following operation. If this does not control the condition, it is continued for 3 months. Recurrences then, which cannot be controlled by iodine demand a second resection of the gland. As a result of studying each case individually and administering iodine properly, the occurrence of postoperative crises has been very much diminished. This is very helpful, as this postoperative complication had always been very serious and most discouraging. In mildly toxic cases the improvement under iodine therapy has been so great that the operative risk has been reduced to a minimum and the improvement in the very toxic cases, especially when they are in a crisis, has been most striking. It has made operation possible in some cases that would have been otherwise inoperable. The number of patients subjected to ligations has been decreased tremendously and we are now able to do a primary subtotal thyroidectomy in many cases where previously preliminary ligations were necessary.

The more general use of local anesthesia in performing a thyroidectomy has been very helpful in reducing the operative mortality and postoperative complications. Immediate operative reaction is less than when a general anesthetic is used, and the number of postoperative upper respiratory infections has also decreased. Another advantage is that the surgeon may converse with the patient in the course of operation and recognize at once any damage to the recurrent laryngeal nerves. Because of the great vascularity of the thyroid gland, postoperative hemorrhage sometimes occurs and may be very serious unless the incision is opened and the bleeding controlled promptly. When operating under local anesthesia you may have the patient cough and strain after the field is dry and you are ready to close up. As a rule one or more bleeding points will be found where the catgut ligature has slipped as a result of the straining. They can be clamped and tied and in this way postoperative hemorrhage of considerable magnitude may be averted. The foregoing considerations make me feel that local anesthesia is the method of choice.

The estimation of the basal metabolism af-



fords an index of the degree of toxicity present. In severe cases that need preoperative treatment, the basal metabolic rate will fall as the patient improves, and in this way will aid one's judgment in determining the time for operation. There are exceptions to this, however, and there are some instances in which the general condition of the patient improves and clinically the patient does not appear as toxic, but the basal metabolism rate remains the same or even increases. Why these exceptions occur is not known but they do show that we cannot always be guided by this test.

As every case of goiter should be studied individually it is not possible to make any generalized statement as to when operation should be performed. Experience has shown that surgery should not be undertaken during a crisis but that medical treatment should be continued until the patient has reacted. Rest in bed and administration of Lugol's solution may cause such a marked improvement in the patient's condition in 24-36 hours that clinically the patient appears to be able to stand operation. This is misleading and surgery should not be undertaken until the patient's condition becomes more stabilized. Repeated basal metabolism estimations assist in determining the progress of the case.

The development of postoperative parathyroid tetany, though quite rare, is worthy of consideration. If it does occur, calcium lactate should be given by mouth and the patient should drink as much milk as possible. Collip's parathyroid extract has proved of therapeutic value in some cases. It can be given in 1-2 c.c. doses subcutaneously, making a total of 10 c.c. in each 24 hours. It is believed that this not only clears up the tetany clinically but also raises the blood calcium, which the administration of calcium alone does not always do; hence the combined administration of calcium and the parathyroid extract is probably the best therapeutic measure in these cases.

As in other surgical fields, we now realize that a follow-up system is essential in diseases of the thyroid. This is of value not only in the cases operated upon but in the adolescent group of goiter. When surgical measures are

instituted for an adolescent goiter the patient should be seen and checked up not only symptomatically but also with a basal metabolic study at least once a month. Frequently, border line cases which are supposed to be simple colloid goiter are found to be exophthalmic in type and sometimes adenomas are found in glands which, previous to medical treatment, were thought to be of the diffuse colloid type. By this means the cases of recurrent and persistent hyperthyroidism may be under constant observation and treatment, and should further surgery be necessary the fact is recognized before too great damage has occurred.

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### PREVENTION OF PULMONARY COMPLICATIONS IN DIPHTHERIA.

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In the operation of intubation, as devised by O'Dwyer, for relief of obstructive laryngeal diphtheria, we have one of the most helpful known procedures, surgical or medical, for control of a dangerous disease condition. Laryngeal diphtheria, sometimes spoken of as membranous croup, is subject to a very high death rate unless treated promptly and efficiently with antitoxin. In neglected cases death occurs in the majority of instances, from stenosis of the larynx—a mechanical blocking of the respiratory passages. On account of the relatively slow absorption of diphtheria toxin from membrane in the larynx, death is likely to result from obstruction before the heart has become dangerously affected by toxic myocarditis. In these cases there is, however, another serious condition always threatening; one which often ensues and which may defeat all efforts to save life—pneumonia.

The majority of cases calling for intubation occur in small children, and the danger of pneumonia, in spite of precaution and even after such a procedure as intubation, is the most dreaded complication. As a precautionary or preventive measure, I began 10 years ago the use of combined polyvalent antipneu-

nococcic and antistreptococcic serum (10 c.c. each), giving such prophylactic injections in association with intubation and diphtheria antitoxin, always. A brief experience thoroughly convinced me of the efficacy of this measure and I was gratified to find that the large percentage of pneumonia complications previously observed in laryngeal cases was practically eliminated, after a decade of routine employment of the treatment, covering a series of several hundred cases in a very active intubation service, and secondary pneumonic extension became almost unknown. Immunization provided by administration of polyvalent antipneumococcic and antistreptococcic serum will equip the patient with a temporary supply of antibodies usually sufficient successfully to resist invasion of the lungs by pneumococcic and streptococcic infections.

We believe that with universal employment of this measure as a routine procedure in general practice there would be little danger of deglutition, insufflation or inspiration pneumonia, and that the temporarily increased resistance would be highly beneficial, as an aid to mechanical measures, in all cases serious enough to require intubation. In these dangerous conditions, the tube overcomes obstruction to respiration, the antitoxin neutralizes the diphtheritic poison, and the supplementary resistance enables the patient to conquer the pathologic process and regain a normal health balance.

In explanation of the use of a mixed serum, it must be borne in mind that pneumonia is not in these cases necessarily due to pneumococcus, but may be, and probably usually is, dependent upon a varied bacterial flora or heterogeneous array of pathogenic microorganisms. Streptococci are responsible for a large percentage of the most alarming cases. The anatomic structures involved are the same as in bronchial or lobar pneumonia due to any other cause, but the bacterial invasion and the pathologic process are quite different in this group. Here we have to deal with a sudden, rapidly induced local infection, without the usual period of incubation and with intense destruction. It is, therefore, clearly apparent that institution of additional resistive factors into the blood stream before lung structures

are actively invaded must be helpful in combating, if not entirely preventing, a circumscribed implantation of infection. It may be remembered, too, that the science of serum therapy is well supplied with evidence tending to prove that immunity and specific and nonspecific antibodies must play an important rôle in the treatment of such a condition as the one under consideration.

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### WHAT NEW JERSEY IS DOING FOR THE MENTALLY SICK.

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(Read before the Academy of Medicine, Newark, N. J., October 12, 1926.)

In coming before an audience of Essex County medical men to talk about what New Jersey is doing for the mentally sick, I feel that I am bringing coals to Newcastle, for you have your own most excellent institution which is doing fine work under the extremely capable direction of Dr. Guy Payne, and you also have a psychopathic ward in your Newark City Hospital, several alienists of national prominence maintain busy offices in your midst, and Doctor Robinson with the school clinic and Doctor Plant at the head of the juvenile clinic are carrying on most excellent preventive and guidance work. Any one of these men could have presented you with a far better address on the subject of the care and treatment of the mentally ill, but Doctor Dowd, who has been such a good friend to the State institutions and who has taken such a beneficent interest in them, has asked me to speak to you this evening on the work being done for those who are wards of the State.

As you all know, the organization for the care of defectives, dependents, and delinquents in New Jersey is centralized in the Department of Institutions and Agencies. At the present time there are 15 such institutions and agencies, with its local board of managers or directors, including the Commission for the Blind, the Board of Children's Guardians, the Soldiers' Home in Kearny, the Memorial



Home in Vineland, the State Home for Girls and the State Home for Boys, the Men's Reformatory in Rahway and the Women's Reformatory at Clinton, the State Prison, the State Tuberculosis Sanatorium, institutions for the feeble-minded, male and female, the State Epileptic Village and the 2 state hospitals for the insane, Trenton and Greystone Park. New Jersey is exceedingly fortunate in having for its Commissioner of Institutions and Agencies the Honorable William J. Ellis. A trained psychologist, on the alert for improvement in methods of care and treatment, he is absolutely honest and fair-minded, working for the best interests of the state and its wards every minute, and he is backed by the institutional heads to a man. They all know that he plays his cards above the board with a square deal for everyone. As the executive officer of the State Board of Control of Institutions and Agencies, of which Doctor Dowd is the honored medical member, he stands for a scientific and progressive attitude which bids fair to carry New Jersey to the head of the line in all phases of institutional work.

The group of "mentally sick" would naturally include the feeble-minded and epileptic and probably many of the inmates of prisons and reformatories, but I am going to limit it to the insane, and very selfishly to the insane at the institution of which I am superintendent, long known as Morris Plains, but recently officially changed to Greystone Park. Patients are regularly admitted to this institution from the 7 northern counties of the state, occasionally from other counties by special arrangement, and very rarely from other states. Admission is usually by commitment on the medical certificates of 2 physicians and an order from a judge; in certain cases, particularly of accused persons pending trial, commitment for observation is made by the judge's order alone; a certain number of patients are admitted each year by "voluntary commitment", by which the individual signs his own application for admission and is held at the discretion of the superintendent, subject of course to habeas corpus proceedings, as are all other committed patients. The matter of payment is arranged upon the basis of the patient's estate or that of those responsible for his support, and does

not affect the care and treatment given in the hospital, since all classification is made according to the type and condition of the patient.

When the patient comes to the hospital he is admitted by a physician and his general attitude and appearance noted. He is then taken to the ward, bathed by a nurse, and placed in bed for a length of time dependent upon his condition. A thorough general physical examination is made by the ward physician and a specimen of urine sent to the laboratory. Within a day or two after admission a complete blood chemistry is made, as well as a Wassermann test. If the blood Wassermann is positive, a Wassermann is done on the spinal fluid. Special examinations are made by the dentist, including an x-ray of the teeth, and by the eye, ear, nose, and throat specialist. If the patient is a woman, a complete gynecologic examination is made by a woman physician. The results of these comprehensive examinations are handed to the clinical director who goes over them with the physician in charge of the ward. Any condition needing surgical intervention is reported to the relatives of the patient and a request made for an operation. If permission is granted the operation is performed at the institution, where the operating room is as completely equipped as that of a general hospital. Usually the resident surgeon operates, assisted by some member of the staff; occasionally, if the case seems particularly serious or complicated, the consultant surgeon from Morristown is called in. If the patient's teeth require attention, an estimate of the cost of the work needed is sent to the members of the family. If they pay, money goes into the State Treasury, thus saving the state the cost of the supplies, etc., but if they are unable to afford the sum requested, the work is done just the same. Whenever all or a great many of the teeth have to be removed, a plate or plates are made to supply the deficiency. Two resident dentists, a mechanical dentist, and a nurse are kept busy in this division. The same procedure is followed if the patient is found to be in need of glasses. Physical conditions requiring medication or special diet are assigned appropriate treatment. In fact, every attempt is made to put the patient on as sound a physical basis as

possible, in order that there may be no impediment left along that line to hinder a complete restoration to mental health.

Meantime, a mental examination has been made by the ward physician and reported to the clinical director. The historian has obtained all possible data regarding the early symptoms, conduct disorders, general record, and family history from friends and relatives who have visited the patient at the hospital; if necessary, social service workers have been sent out to visit the home and obtain further light on the case. This information is also transmitted to the clinical director, and when the various reports are all in he assigns the case to some member of the staff for presentation at staff meeting. This physician devotes careful study to all the data, summarizes what he considers the salient points, and presents them before the entire staff at one of the regular meetings held 4 times a week. The patient is then brought in and questioned by the different physicians in turn, after which a discussion of the diagnosis, prognosis, and treatment is held.

The treatment possibilities are varied, depending upon the general physical and mental condition and the personality of the individual. Various types of hydrotherapy are in constant use, among them the needle, spray, douche, and other stimulating baths, usually used following the steam or electric cabinet and completed by massage, the continuous baths used for quieting excited patients, and the different varieties of packs. All of these are administered only with a physician's prescription and by trained hydrotherapists. Electrotherapy is also used extensively in numerous forms. The Alpine lamp and the Kromayer lamps have been recently added to our equipment and are in constant demand, and we are now getting in machines for the giving of diathermy treatments. For over a year we have been trying out the malarial treatment for paresis, and while good results have been obtained in some cases, we do not feel that we are yet in a position to make any definite statement as to the final value of this method. Other forms of research are also being carried on according to plans worked out by the clinical director and the pathologist coöperating.

Physical activity, wisely directed, is held to be one of our most valuable therapeutic measures. To the more or less simple varieties of work in housekeeping, gardening, on the farm, and in the mechanical shops and laundry there was added, about 12 years ago, an occupational division where more complicated trades and handicrafts are taught. These include book-binding, printing, ruling, the construction of willow and reed baskets and furniture, rug making and weaving, concrete block making, raffia work, lace making and other fancy work besides carpentry, fine cabinet work, and toy making. The patients employed in the various industrial shops are for the most part of a fairly quiet type who can be supervised in groups of considerable size; many of them, having acquired self-control and ability to concentrate over extended periods, are presently ready to leave the hospital on trial visit.

Some four or five years ago I decided that another type of occupational therapy was badly needed, to supplement the existing activities and provide stimulating diversion for the large group of residual population which always constitutes a considerable percentage of the inmates in any old institution for the mentally sick. As a rule, these patients are either dull, vacuous, and inactive, sitting around the corridors all day, indifferent to their surroundings, or else noisy, restless and destructive, attacking other patients, tearing up clothing, breaking windows and furniture. Recoveries in this group are infrequent and long delayed, and the easiest method of treatment is to give them the best custodial care possible and leave them to their own devices except where restraint of some type is required to prevent too great damage to person and property. As an experiment, to see whether or not any valuable results could be hoped for in dealing with this group, a new section of the occupational therapy division was opened under a trained director, taking the patients either on the wards or in adjacent rooms where individual personal attention could be given. A consistent effort was made to interest each patient in some form of constructive activity, beginning with the simplest of habit training and gradually increasing in difficulty as the patient became capable of more sustained attention.



These curative workrooms have now been extended to include training for newly admitted patients of the disturbed or depressed types who cannot be handled in large groups, and the work is being carried on in all the large residence buildings by a corps of six trained occupational therapists and seven assistants.

Another development dealing with the same unpromising material is the division of physical education. The director of this work and her assistants go into the most disturbed wards where the patients are quarrelsome, soiling, and destructive, and endeavor to arouse interest in coördinated movements by marching, singing, and simple games, to music supplied by a portable organ or victrola. If any of you were present at our Field Day exercises on Saturday, you saw some of the results in the complicated costume drills and exercises carried out by quiet and orderly groups of patients. This providing of attractive and interesting activities has brought about a considerable saving in clothing and furniture, as well as a decided betterment in the mental and physical health of the patients and a marked improvement in the general tone of the wards and the exercise yards.

A wide variety of amusements and recreation is always provided for the patients. Dances are held once a week, and motion picture shows twice a month. Frequently during the year, singers, and instrumental musicians of note come to the institution to provide entertainment for the patients, free of charge. Parties are often arranged by the physical education workers, both small affairs on the wards and more elaborate functions held in the amusement halls. Radios, pianos, and victrolas are scattered throughout the wards, and we have two well stocked libraries where reading matter of many types and in almost all languages may be selected by the patients. For those not able to go to the library, book carts make the rounds, carrying magazines and books to the bedsides. Many types of organized sports are carried on in the summer, on the hospital athletic field, and in the winter the bowling alleys are used almost constantly, men and women from different wards and classes coming according to schedule.

Mention has already been made of the duties

of the social service division in obtaining data prior to the presentation of the patient at staff meeting. When the patient has improved sufficiently to permit of the possibility of his leaving the institution, the social service workers are again called upon to visit the home, learn what the surroundings are to be, advise the family what to do and what not to do if the welfare of the patient is to be promoted, and find what work, if any, the patient will be expected to do; occasionally they assist in securing a suitable position. A report of all these findings is made to the clinical director and he arranges for the patient to be presented at staff meeting. Once a week, in addition to the four meetings held for the examination of newly admitted patients, a fifth meeting is held for the presentation of those patients for whom a trial visit outside the institution has been requested. At this meeting the whole history of the case is reviewed with the record of conduct while in the hospital, and the patient is carefully questioned by the entire staff to ascertain whether any tendencies are present which might make the person a menace to himself or others. A report of this meeting, with the recommendation of the staff, is then handed to the superintendent, who decides whether a trial visit shall be permitted.

If the decision is in favor of a visit, the social service division takes over the supervision of the case when the patient leaves the hospital, and obtains periodic personal interviews with the patient, as well as information as to his conduct from members of the family and others who are in contact with him. If at the end of a year he is making a good adjustment in the community, he is finally discharged from the hospital records. If, on the contrary, he does not do as well as his friends had hoped, his return to the institution can be arranged at any time during the year without further legal procedure. With a total today of 3637 patients on our books, we have 242 outside the institution on trial visit.

No discussion of the care of the mentally sick could possibly be complete without mention of the nursing division, for the nurse is second only to the physician in promoting the restoration of a mental patient to the point where he can again become a useful and hap-

py member of the community. Because of this fact, we are coming to realize that the care of the psychopath is too complicated and exacting a profession to be turned over to ignorant young girls and boys or the "hard boiled" men and women of the rounder type who may apply for attendants' positions. For the faithful and conscientious attendant who takes a personal interest in his charges there will always be a place in the state hospital organization, but we are gradually swinging the more exacting positions on the reception and acute services into hands of graduate and student nurses, and even, so far as possible, the charge positions on the continued treatment wards. A registered nurse, graduated from an accredited training school in a state hospital, is superintendent of nurses and also has full charge of all attendants, male and female. An accredited training school for nurses has been established with a three year course of which one year is spent in an affiliated general hospital. Our graduates are eligible to take the state board examinations to become registered nurses, and in all respects are on a par with general hospital nurses. We are hoping to establish presently an affiliated and postgraduate course for nurses from general hospital training schools, but as yet lack housing facilities to do so. Our clinical director, however, is lecturing to student nurses in two nearby hospitals.

For years the State Hospital at Morris Plains suffered from lack of adequate financial support, so that existing buildings could not be kept in proper repair and no attempt was made to increase the plant to correspond with the needs of the increased number of patients. In 1920-1921 a comprehensive building program was mapped out and construction work has progressed continuously since that time. In 1920 there were over 1000 patients in the hospital in excess of the planned capacity, 500 beds were made up in the corridors of the wards each night, resulting in highly unsanitary conditions and increasing the fire hazard to a terrible extent. Living quarters for employees were utterly inadequate and the hospital was undermanned in every department from the physicians down. The first building constructed under the new program, the Clinic,

was opened in 1923, with a capacity of about 300 beds. The hospital population had increased so steadily, however, that this building was filled without lowering the 1000 patients overcrowding which existed when it was planned. Cottages for nurses and physicians were also constructed, thus making it possible to increase the staff somewhat, and living quarters were remodeled to permit more people to be comfortably housed in the same space. Two new congregate dining halls have been erected and put in service, thus releasing for dormitory use the old dining rooms on the wards and giving space for approximately 300 beds. Two years ago ground was broken for a Reception Building which is now almost completed. It is planned to house 250 patients, of whom 50 will be the acutely disturbed. The design is, we think, the best that has yet been worked out for caring for newly admitted patients where intensive medical and nursing attention may bring about a speedy recovery. Each ward is half private rooms and half small dormitory, thus permitting a degree of segregation and classification which is highly important. In order to meet the demands of the increased number of buildings, a new boiler plant has been constructed and the sewage disposal system has been remodeled. The problem of a safe and adequate water supply is now under consideration. Money has just become available for the construction of housing for employees, which is our most pressing need at present, and we hope that excavating may soon begin for another cottage for nurses and a large building for attendants' quarters; housing for 50 outside employees and a new occupational building are also provided for.

All that I have told you so far has to do with the mentally sick who are being cared for in the State Hospital at Greystone Park, or those who have recently been permitted to leave that institution. During the past year, however, we have inaugurated another form of work intended to check in some measure the constant stream of new patients at its source, by prevention. This has been done by opening in various centers of our hospital district mental hygiene clinics, in order to place at the service of the public a staff of trained psychiatrists, psychologists, and social workers. These clin-



ics are purely advisory, no fees are asked or accepted; all physical conditions needing correction are referred to the family physician or to some specialist or dispensary service, and every effort is made to coöperate with the local physicians. So far, 3 clinics have been placed in operation, one at the Elizabeth General Hospital, one at the Hackensack Hospital, and one at St. Joseph's Hospital, Paterson. We hope to open at least 4 more, in order that we may have one in each county of our hospital district. They are under the personal management of the clinical director, aided by a staff physician and 2 social workers. In addition to this personnel furnished by the hospital, a psychologist has been supplied from the staff of the central office of the Department of Institutions and Agencies.

All of these clinics have registered immediate success and have been patronized to more than capacity. Among the many psychotic persons coming for advice the majority can be assisted to adjust themselves in the community, so that hospitalization will not be required. The physicians in the different localities have responded heartily and are glad to have suggestions regarding psychotic problems in their patients. It is our hope that the clinics will develop into recognized consultation centers where all varieties of cases with mental complications will be welcome for understanding study and specialized advice, and that from this work a knowledge of the simpler principles of mental hygiene may gradually be diffused throughout the community.

There is no doubt in my mind that prevention in mental diseases is a vitally important as in the contagious and infectious physical diseases. The modern state hospital may have 50% or more of those admitted either recover or improve sufficiently to live outside the hospital comfortably and safely, but the others will become more or less permanent institutional residents, for lives are often long under hospital conditions—we have at Greystone Park now 2 women who entered the institution when it was opened 50 years ago. The cost of maintaining patients in an institution progresses with the standards of the community. There was a time when employees could be tucked away in any place not suitable for

patients, and doctors in quarters not satisfactory for employees, but if such methods were followed today no one could be hired to work in institutions. Living standards for employees, nurses, and physicians have to equal in comfort those which would be considered suitable for people in a similar social grade outside. Adequate wages must be paid if proper people are to be obtained to care for the mentally sick. Economize as we will, it now costs us over a dollar a day to maintain a patient at Greystone Park, so, entirely apart from the humanitarian considerations, every person saved from commitment is money in the pockets of the taxpayers.

We once computed statistics based on the admissions to this hospital during the first year it was opened. We found that the average life as public charges was over 17 years for each of those patients. We hope that our recovery rate is higher under modern conditions, but even supposing that the average should be 10 years for each admission, that means \$3650 at our present rate for the actual cost of maintenance for every patient admitted to a state hospital. Last year our admissions numbered 730, or an average of 2 a day. Any of you who have a taste for statistics can figure out for yourselves whether preventive clinics are worth while or not, if they keep even a small number of psychotic persons from requiring hospitalization. As for the saving in human suffering, none of us would dare try to compute that, for there is seldom any physical sickness that brings the distress and hardship to all members of the family group which inevitably follow the development of a psychosis in a member and commitment to a mental hospital.

It is absolutely impossible to cover in a short paper a subject as extensive and important as this, and any attempt must necessarily touch only the high spots, omitting the many interesting details which would give life to the dry outline. But I hope and trust that I have given you a general idea of the work which is being carried on, and that we may have your hearty support in our endeavor to put New Jersey on a par with the most progressive states in the Union in her care of the mentally sick.

## THE PHYSICIAN'S RELATIONSHIP TO THE WORKMAN'S COMPENSATION LAW.

ANDREW F. MCBRIDE, M.D.,

Commissioner of Labor, Trenton, N. J.

(Read before the Monmouth County Medical Society, November 24, 1926.)

In accepting the invitation of Dr. Warner to speak to your society on this occasion the natural query was, "How can I use this opportunity to the greatest benefit of all present, and in such a manner as to be reflected in the important work entrusted to my keeping?" I refer chiefly to that portion of my responsibilities pertaining to the administration of the Workman's Compensation Law of this state. This act is one involving many ramifications and an address should approach it from some definite angle, consequently I feel constrained to speak to you upon the legal aspect of the law as it affects the doctor.

It is a fact that legal questions are of little interest to a doctor. The doctor spends his life dealing with diagnosis of concrete facts. The lawyer expends his energies in endeavoring to diagnose abstract phrases of law. Little wonder, therefore, that the doctor is puzzled at times to understand the legal mazes which occasionally are forced upon him. This compensation law is a veritable labyrinth, so much so that a member of the Court of Errors and Appeals of this state said on one occasion that no type of litigation that is presented to that court for determination involves so many intricacies or is so difficult of analysis as the compensation law. I do not quote his remarks verbatim, but give you the import of his comment. Having these things in mind, doctors may perhaps be excused for being ignorant of certain phases of the compensation law of vital importance to the profession, and I know whereof I speak when I say there is abroad not only a colossal ignorance, but a vast amount of misinformation concerning this act. I trust we may be able to clear up some of these misconceptions in so far as the doctor is concerned.

To begin, the general impression prevails

that, when an injured worker places himself in the hands of a physician, the physician need only send his bill to the Compensation Bureau for collection from the employer. Any intelligent man, who stops to consider, must know that a contract between two parties cannot be entered into and that contract be enforced against a third person, yet that is exactly the situation which is constantly being presented to the Bureau by doctors and hospitals; and possibly to some degree the Bureau is responsible for the erroneous impression which prevails, owing to the fact that the Bureau has consistently endeavored to see that these charges were paid. These activities have been without legal foundation, and involve a vast amount of work toward accomplishing a result for which the law does not make the Bureau responsible. We have brought about the settling of hundreds of such accounts purely from our desire to help this general work in any way possible. The impression has thus been fathered that we are legally empowered and obliged to see that bills contracted as indicated above are paid.

Let us analyze the legal phases of this section of our statute. The New Jersey Compensation Act is an agreement which the law of this state automatically writes into every contract of employment. This contract is one involving an employer and an employee as principals, and very evidently applies to and can be binding only on these two principals. It most positively is inapplicable to a third party. This statement should need no substantiation, as it is inconceivable that Mr. A. can enter into a contract with Mr. B. involving terms agreed to by them, and this contract be enforceable against a third person, Mr. C., who was not a party to said contract.

Accepting the principle, therefore, that only those who are parties to a contract, are bound by or subject to it, let us apply this fact of law to situations met in the treatment of injured workers. As the outcome of an injury by accident arising out of and in the course of employment, any one of the following situations may result: (1) The employer may engage a physician to care for the case, specifying that his obligation is limited primarily



to \$50.00 for medical care, and \$50.00 for hospital service. (2) The employer may engage the physician without specifying any qualifying conditions. (3) The insurance carrier may engage the doctor, specifying a limitation of \$50.00 for each kind of service. (4) The carrier may engage the doctor with no such limitation. (5) The employee may need medical care and upon application to the employer be refused, following which he himself engages a doctor. (6) The employee may secure a doctor without applying to his employer, who may be unaware of the need of medical attention.

The question is, "What is the legal status of each of these situations?"

Under the first supposition the employer meets his legal obligation by engaging a doctor and notifies him that he is restricted to a charge of not more than \$50.00. This is a contract between the employer and the doctor; it therefore is not under the jurisdiction of the Compensation Law, consequently it is not enforceable in a compensation court. Such a contract must be sued out in a court of competent jurisdiction, and since the contract specified a limit of \$50.00, the doctor can secure a verdict for no more than that sum if he continues rendering service to a greater obligation. In addition, he cannot successfully prosecute the patient for the balance of his bill since there has been no contract between himself and his patient.

What can the doctor do in such a situation? It would be most unkind, unethical and reprehensible if he forthwith dropped the case when the \$50.00 limit was reached; hence the law makes provision for this crisis by empowering the doctor to act for the injured, and in his stead, and authorizes him to file a petition with the Compensation Bureau, not to give the doctor any rights under the compensation law, but to enlarge and extend the employer's obligation to the employee. If the employer refuses to meet the Bureau's ruling with respect to an extension beyond \$50.00, the Bureau is empowered to make an order requiring the employer to pay.

Considering the second situation, wherein

the employer, when engaging the doctor, specifies no limitation, there obviously is no such restriction and the doctor, if not paid, is at liberty to sue in the Common Law Courts for the full amount of his bill. Under these conditions the doctor may possibly deprive the employer of some elements of his defense by filing a petition with the Bureau for an extension beyond the \$50.00 limitation, but there is no law, under such a status, requiring the doctor to follow this procedure.

Under the third assumption, when the doctor is secured by the insurance carrier, neither the employer nor the injured man is a party to the contract and the doctor's right of action lies wholly against the carrier, subject, of course, to the \$50.00 limitation named in the contract. When this has been reached, the employee, or the doctor acting for him, as provided by statute, should file a petition against the employer, whose duty it is to meet the obligation or see that the carrier, with whom he has a contract of insurance, does so as his representative.

Under the fourth set of facts wherein the carrier specifies no limitation when engaging the doctor, the doctor is not limited in his treatment, and action lies against the carrier in the Common Law Courts for the full amount of the bill. It is not obligatory upon the doctor to file a petition for extended treatment beyond \$50.00, but if he will do this, he may find less difficulty in collecting his bill.

Under the fifth situation enumerated, wherein the injured employee applies to his employer for medical care, and the employer refuses or neglects to furnish it, the employee is authorized by statute to engage a doctor. This, however, does not give the doctor any standing under the compensation act. Such a contract is between the doctor and the injured person, and the physician's recourse is against the injured man in the Common Law Courts. He, in turn, has right of action against his employer in the compensation court, subject, however, to \$50.00 limitation, unless he, or the doctor acting for him, shall have filed a petition for increased allowance. The employer, if insured, then has legal recourse in the Common Law Courts, against

his carrier, in accordance with the terms of his policy.

At the present time, doctors who have been called in by injured workers, are endeavoring to compel insurance companies to pay their charges. As a matter of fact they have legally no right of approach even to the employer, much less than to the carrier, from whom they are twice removed.

Under the sixth situation as assumed, in which the employer is without knowledge of the need of medical care on the part of one of his employees, and when the injured calls in a physician, the doctor must of course look to his patient for payment. The employee in such status is without redress as against his employer, unless he can show that the circumstances were so peculiar as to justify, in the opinion of the Bureau, the expense assumed by him.

In closing this paper I have this suggestion to make: Every physician should, immediately upon giving first aid treatment to an injured employee, call up the employer and acquaint him with the situation and secure his authorization to continue caring for the case. If the employer brings the man to your office, or sends a representative or a written order for treatment, that of course is sufficient. The doctor will also do well if he ascertains the name and address of the carrier. Following this, I cannot too emphatically urge that the doctor make periodic reports to the carrier. If these things are regularly carried out, almost all of the controversies relative to medical bills will disappear. I submit, it is asking much of any organization to accept without question and pay any and every bill which may be thrust at it. We cannot quarrel with insurance companies for complaining of a situation which we, as individuals, would absolutely refuse to accept.

Finally, since it can do no harm in any case, I would suggest that in every case a petition be filed with the Bureau for an extension of medical service beyond the \$50.00 limit prescribed by law. It may not always have legal importance but it will deprive the carrier of a line of argument used to obstruct payment.

## IMPORTANCE OF NASOPHARYNGEAL INFECTIONS.

ALFRED M. ELWELL, M.D.,

Camden, N. J.

Sometime ago Dr. J. B. Deaver made a statement that 50% of his work was caused by infections above the neck, and another writer has said that the organism which causes your death is in your body before the age of twelve. If this be true, preventive medicine, in order to prevent, must start early in life or we are remaining inactive when much could be done, and waging our fight only when signals of distress are given. Periodic health examinations should begin in infancy and continue throughout life instead of starting in middle life for the purpose of delaying age and its attendant disease.

The earliest care must be directed toward keeping the upper respiratory tract healthy, as there is no doubt that infections of this area cause more deaths than all other sources combined, for we must include not only the acute and chronic disease of the tract itself but also the resultant damage to digestive, circulatory and other systems which may take years to develop.

Probably the earliest or initial infection of life is the so-called common cold; usually spoken of by patient and attendant as "only a cold", yet it is most frequently the beginning of a permanent infection right at the threshold of the body. True a cold is only an inflammation of the mucous membrane caused by the presence of some organism, commonly the catarrhal bacillus, and would without care clear up in 24 to 48 hours, if a mixed infection did not occur.

The nose is divided by the turbinates into a 3 story structure, and the space between each turbinate and the outside wall is the corresponding meatus; the lacrimal duct empties into the inferior meatus; the anterior group of sinuses communicates with the nose through the middle meatus, and the posterior group through the superior meatus.

The eye, with its optic and attendant nerves and vessels, is separated from the nose by bone of only egg-shell thickness. The tur-



binates are spongy bodies which swell not only with colds but from any irritant, such as circulatory or gastro-intestinal disturbances, and with the swelling partial or total obstruction of the sinuses is threatened. Thus we have not only obstruction to breathing but to drainage and ventilation. When the infection is purulent, as is the case in most colds, the dangers to which these vital structures are exposed can readily be seen.

The septum is, in a large percentage of people, deflected on one or both sides—depending upon the nature of the injury causing deformity. A blow from the side will give the one curve, concave in one nostril and convex on the other; while straight blows usually cause the septum to buckle and take the shape of the letter S with middle turbinate and the upper curve approximating on one side and the inferior turbinate and lower curve on the other. The latter obstructs the breathing on that side and sets up a catarrhal focus posterior to the obstruction; all drainage goes into the throat, with involvement of the eustachian tube and obstructive deafness as a certainty. But impingement of the upper curve and middle turbinate is even more serious, for here not only do we have the condition just described but a pocket is soon formed by the hypertrophied turbinate bone below, and walled above by the nasal bone and deflected septum. This causes a pushing downward of the turbinates into the middle meatus, closing the outlet of the sinuses, with negative or pressure headaches and eye symptoms, and, if pus is present, danger of an extension of the purulent process into the sinuses, with drainage impossible and a threatened involvement of the meninges. Nor is the danger removed with subsidence of the acute attack, for after each attack there is left a chronic rhinitis or chronic catarrh.

Thus, a latent infection remains, awaiting only fatigue, exposure or fresh infection to cause a return of the acute symptoms, and the patient thinks he has caught another cold when he has only an exacerbation of the first infection. Most of these patients go on indefinitely swallowing huge quantities of pus, exposing stomach, gall-bladder and other structures to the possibility of a secondary infection.

The tonsils are most probably first infected, secondary to the nasal condition, causing widening of the crypts and then filling with mouth secretions and food, starting a tonsillitis, and we again have the menace of the ingestion of masses of infectious material with each milking of the tonsil. As the infection reaches the deeper part of the tonsil or peritonsillar space the danger of secondary focus being established by way of the blood stream increases.

The gums, particularly at their junction with the teeth, are subjected to the same infection as the tonsil if injured by improper use of the tooth brush; collections of food between the teeth or dental work cause a break in the peridental membrane at the top, and I believe that most dental infections are secondary to mouth infections extending downward along the peridental membrane. We can improve these conditions only by education and coöperation. As long as they are treated lightly, even to the extent of the family handkerchief, towel, drinking cup and the mingling with other people when infections are in the acute stage, so long will we have the increase in upper respiratory disease which has been so noticeable in the past decade.

Free ventilation for the entire nose should be established and the mucous membrane restored to a healthy condition. Nasal douches, while theoretically wrong, are far better than a dirty nose. The mouth should be rinsed thoroughly after meals, with not too much dependence upon the tooth brush.

The question as to removal of tonsils can be viewed from 2 angles: (1) If we have symptoms of a chronic infection they should be removed on suspicion; (2) if there is evidence of the crypts being infected, do not wait for symptoms. Be guided by the palpable cervical gland or the reddened border of the soft palate or outer pillar. Hypertrophied tonsils act as a foreign body in obstructing and should be removed, together with any adenoid tissue. This does not allow many tonsils to escape, which is probably best, for if this infection can cause so many serious conditions, preventive surgery is certainly justifiable and more time must be given to stopping these infections than to their care after damage is done.

## In Memoriam

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PITTIS, Albert, of 187 East Front Street, Plainfield, N. J., died at his home on February 1, 1927, after a two weeks' illness of pneumonia. Dr. Pittis was born in Plainfield 54 years ago and had practiced medicine in that city for about 30 years. He was an active member of the Union County and New Jersey State Medical Societies, and was affiliated with Anchor Lodge No. 149, F. and A. M.

A notable achievement in Dr. Pittis' professional career was the skin grafting case of Wilson S. Frederick, of 49 Broadway, New York City, an employee of the United States Express Company, who was severely burned and scalded in a wreck on the New Jersey Central Railroad in 1904. Over 3500 strips of skin were applied and grafted. There is probably no other case on record where the patient lived with such a large area denuded of skin. The Thiersch method was used by Dr. Pittis. Over 100 Masons contributed skin to aid Dr. Pittis in this remarkable case.

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NEMSER, Rudolph, of Jamesburg, N. J., Medical Inspector of Public Schools at Trenton, was fatally injured on February 3 in an automobile accident near Freehold. In the crash which followed a locking of the steering wheel, Dr. Nemser's head was crushed and he died before reaching the hospital at New Brunswick.

Dr. Nemser was 30 years old and had been practicing in Jamesburg since resigning his position as resident physician at the State Home for Boys, about 4 years ago.

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WILKINSON, George W., for 30 years a practicing physician of Morristown, died February 9, after a brief illness in a private hospital of that city.

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SHARP, Edward S., one of the oldest residents of South Jersey, having attained the age of 95 years, died at his home in Salem, on February 9. He was a graduate in medicine from the University of Pennsylvania in 1855, and had for a considerable time served as President of the Salem County Historical Society.



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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if,—

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

## THE COMING ANNUAL MEETING.

The date set for our Annual Convention—June 9, 10, 11—is not so far distant that we can with impunity delay preparation for participating in the event. First, you should determine at once that you will be “among those present” this year; then mark those days on your engagement book as already preëmpted, so as to avoid the making of other promises that will prove in conflict with your natural desires when time for the convention actually arrives. Secondly, if you contemplate presenting a paper or reporting any scientific work at this year’s meeting you must communicate immediately with the Chairman of the Committee on Scientific Work—Dr. R. K. Hollinshed, Westville, N. J.

On Sunday, February 20, the above mentioned committee and the Committee on Program and Arrangements held a joint session at Atlantic City and concluded preliminary arrangements for the June Convention. As heretofore, the first morning (Thursday) will be devoted entirely to work of the House of Delegates. Reception of the Report of the Nominating Committee and election of officers will occur in general assembly promptly at 2 p. m. on Friday. The sessions of Thursday afternoon, Friday morning and Friday afternoon, except from 2 to 2:30, will be given entirely to the Program of Scientific Work. For these scientific sessions the program is at present well arranged but there is still room for a few good volunteer papers.

An experiment which promises well, is the

setting aside of Saturday morning for a Clinical Session, the arrangements for which have been placed under the direction of the staff of the Atlantic City Hospital. If you have been reading our excellent monthly reports of the work of that institution you know that the material and personnel are at hand for a most interesting series of clinical demonstrations.

Another departure from usual procedures is that the President’s Address will be delivered at a fixed time—12 o’clock noon on Friday—instead of being mixed in with the evening social functions.

The evenings will be devoted to sociability and entertainment, and the House of Delegates will hold a final session Saturday afternoon.

We may also call attention to the fact that the New Jersey Hospital Association is scheduled to hold its convention at Atlantic City on June 7 and 8; a convenience and added inducement to some of our members.

Altogether, preparation is being made for an exceptionally fine annual meeting, and you will be sorry, indeed, if you miss it.

## IN THIS ISSUE.

To facilitate your reading of the Journal and finding important items quickly, may we direct your attention specifically to the following items presented in this issue.

The “Special Article” on Regulation of Physicians by Law, this being the second of a series, is devoted to discussion of Legislative Bills now pending in the State Assembly

at Trenton. You will find some features of these proposed laws interesting, at least, and possibly you will want to express your opinion thereon to your representatives in the House and Senate.

Under "Current Events" you will find an interesting report of the recent National Congress on Medical Education and Licensure, and an explanation of plans being developed for the organization of a Woman's Auxilliary to the State and County Medical Societies. Every member is, or should be, interested in this last mentioned subject and should at once familiarize himself with the details of these plans.

Observations from the Lighthouse deal this month with a question of considerable importance to the family physician—Nasal Sinus Disease—and we call special attention to it lest you should pass it by under the impression that it was written for specialists; the material was culled largely from articles published by rhinologists which were selected for presentation here because bearing upon the question from a general practitioner's point of view.

The monthly hospital travel letter from Dr. Bradshaw is especially interesting and will be a joyful reminder to those of you who have visited or studied in Glasgow.

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#### COMMERCIALIZING HEALTH EXAMINATIONS.

As might have been expected to happen sooner or later, an effort is being made to exploit the public and the medical profession in the matter of health examinations. We are in receipt of a letter, addressed to a physician of Newark and submitted to us for investigation, announcing the establishment in New York City of an "Institute" which proposes to make a business of "Health Extension Service". The success of the Life Extension Institute is referred to as reasonable ground for supposing the new organization can build up a successful business. To the physician, the alluring offer of "a fee of \$3 for each examination" is made. Nothing is said in the first circular letter about the charge to be made to subscribers to this service, but we are justified in guessing it will not be less than \$15.00.

There has not been sufficient time as yet to conduct a thorough investigation, but our very first inquiry in New York brought the information that the organization is composed of 4 laymen, and that apparently it is a "money making proposition". The "success" of such a scheme is necessarily dependent upon employing a number of physicians to do the work. It ought not to be necessary to warn physicians against engaging in such work, but, lest some of our members thoughtlessly engage themselves we do warn them to avoid such entanglement.

Periodic health examinations call for high class work by competently trained physicians. Such work should be done by direct engagement between the physician and the citizen; not through any intermediary agency. Finally, as the laborer is worthy of his hire, the examiner should receive the full fee for this service and not have to share it with any commercial organization.

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#### STATE LEGISLATION.

Just as we are going to press, word comes that Assembly Bills 161 and 177 have been reported out of committee and placed on second reading file. This means that either or both of them may be called up for action in the House of Assembly at any session after that commencing Monday evening, March 7.

A 161 provides for the establishment of a Board of Examiners for licensing Naturopaths, and is a particularly vicious specimen of cult legislation.

A 177 would confer upon Beauty Parlor Managers—Cosmetologists, they are to be called—the right to perform many minor surgical operations. The proposed law contains no provision requiring these people to give evidence of surgical training, skill or ability.

Both bills are bad. In the interest of public health and to safeguard the ignorant and the unthinking portion of our people against such charlatantry, it is our duty to oppose enactment of such laws. Communicate at once with your State Senator and your Assemblyman and urge opposition to these measures.



## Special Article.

### REGULATION OF PHYSICIANS BY LAW.

(Second article)

We started this series of articles last month with the statement that each annual session of the General Assembly of New Jersey has to deal with one or more proposed measures for conferring legal recognition upon irregular followers of the healing art, and endeavored to show that in practically all such instances the result of such legislation would be the lowering of medical educational standards, the granting of special privileges to persons unqualified for the practice of medicine in any proper sense, and the breaking down of barriers that now, in some measure even if imperfectly, safeguard the public health. Quoting from Mr. Kelly's brochure to show that most of the special legislation asked for by cultists is really designed to permit their entrance upon the medical field without previous compliance with established reasonable requirements as to fitness—in relation to either general or medical education—we intended to proceed this month with a consideration of other aspects of the general question, but as recent events at Trenton furnish such an excellent illustration of the first portion of our theme we shall linger over this and present you with some interesting features of newly proposed cult legislation.

#### CHIROPRACTIC BOARD.

In Assembly Bill No. 111, the chiropractors again attempt to secure a separate board of examiners and to set up their own standard of requirements for licensure. The preliminary education called for is a 4 year high school course, and the "medical" education must consist in graduation "from a duly chartered, and incorporated school or college of chiropractic \* \* \* \* in good standing in the opinion of said board". (This might be interpreted to cover in such institutions as Mecca College.) A candidate, meeting such qualifications, shall take an examination before the board—nothing being said about the character of this examination, not even as to the subjects to be embraced—and, "if the *oral or written* examination of any applicant for license shall be satisfactory to the majority of the board, he shall receive from the board a license authorizing him to practice chiropractic". A very significant clause, i. e., significant to those who remember the disappearance of the records of the Chiropractor Board

of a few years ago, reads as follows: "All examination papers shall remain in the custody of the board for a period of one year, at the expiration of which time they shall be destroyed, and shall be prima facie evidence of all matters therein contained". If such records have any possible value as evidence, why should they be so summarily and completely disposed of after such a brief period of preservation? There is small probability of such papers being demanded in any court within one year of the examination date; later than that they could not be legally provided.

#### NATUROPATHIC BOARD.

Assembly Bill 161 would provide for the creation of a "New Jersey State Board of Naturopaths" consisting of 5 persons to be appointed by the Governor from among those who "have been residents of this state for at least 3 years and who shall be naturopathic physicians who have actually engaged in the practice of naturopathy for at least 3 years"; the names of the appointees to this board are to be supplied to the Governor by the New Jersey State Society of Naturopaths. We might suggest to his Honor the Governor that he make a pertinent inquiry as to why he should be required to appoint to office men who confess they have been violating existing law for 3 years at least—for if anyone not licensed to practice medicine has been engaged in the practice of naturopathy as described in this proposed law, for the past 3 years, he has been doing so as a law breaker. It is a curious point, observed in similar bills of previous years, that the followers of a special cult usually assume that persistent violation of existing laws, if confessed to, specially qualifies them to become promulgators and enforcers of a new law made to their own liking.

The proposed board would in this instance clothe itself with unusual powers and privileges, including the right "to issue subpoenas which shall require *any persons* to whom they are addressed to attend before the board, or any member thereof designated by the board, upon *any hearing* which may be conducted under authority of the board", and the penalty for disobedience of the commands of this board shall be the same as for disobeying the orders of a Circuit Court. This is quite "some power" to confer upon an irresponsible group of citizens.

In a moment of rare generosity, perhaps, a clause is embodied in the Bill which says that nothing in this Act shall be construed "to prevent or interfere in any way with physicians and surgeons, who shall hold licenses granted by the State Board of Medical Examiners,

from using, in their practice, the principles of naturopathy". This generous action cannot be fully appreciated until one has read section 10, defining the practice of naturopathy as "that system of the healing art which uses or prescribes the use of the combined psychological, mechanical and material sciences of healing as taught in schools, institutes and colleges of naturopathy, which may be recognized by the State Board of Naturopaths; the psychological such as psychotherapy; the mechanical such as mechanotherapy, neurotherapy, hydrotherapy, electrotherapy, pneumotherapy, zonotherapy, chromotherapy, vibrotherapy, corrective and orthopedic gymnastics, spondylotherapy, and the material sciences such as *geotherapy*, *histolotherapy*, *phytotherapy*, dietetics and external applications". Do not feel at all embarrassed if you do not recognize or know the meaning of the italicized words; they are not to be found in either Dorland's or Gould's medical dictionaries nor in the Standard Dictionary of English. Presumably this collection of "therapies" was selected with a view to covering the entire field—of being all inclusive—even at the risk of embracing some that had never yet been heard of.

The generous spirit manifested toward physicians and surgeons, as referred to above, did not, however, hold for any length of time. Indeed, the very next following section of the Bill provides that "all acts, general or special, inconsistent with the provisions of this Act are hereby repealed". It may not have been deliberately planned for the purpose—we will try to be generous ourselves—but this might be interpreted as repealing the present general Medical Practice Act, for that law is surely inconsistent with some provisions of the proposed act.

#### BEAUTY PARLOR BOARD.

In Assembly Bill 177 we have still another pending example of the folly of setting up special boards of examiners for the licensing of those who would practice some particular branch of medicine, some special mode of procedure, or treat with some limited portion of the human body. This time the would-be practitioner has assumed the high sounding title of "Cosmetologist" and the Act is "to regulate the occupation of hairdressers and cosmetologists" through establishment of a special board to issue licenses to persons engaging in such practices. The cosmetologist (a perfectly good word) is described as a "person who, with hands or mechanical or electrical apparatus or appliances, or by the use of cosmetic preparations, antiseptics, tonics, lotions, or creams, engages for compen-

sation in any one or any combination of the following practices, to wit: massaging, cleansing, stimulating, manipulating, exercising, beautifying, or similar work, the scalp, face, neck, arms, bust, or upper part of the body, or manicuring the nails, or removing superfluous hairs, warts, moles, by the use of electricity or otherwise, about the body of any person."

Elaborate provisions are made for creation of this board of examiners and for recognition of schools that may be planned for teaching cosmetology, but the character of examination to be given to applicants for a license is left entirely to the judgment and discretion of the examiners, and nothing is to prevent practicing cosmetologists from training others, through the medium of apprenticeship, in the shop rather than in a school of the art. It is in large measure a trades union movement, but under the guise of raising "professional standards" would confer upon beauty parlor operators the legal right to perform minor surgical operations. The Bill does very graciously exempt physicians, surgeons and dentists from any penalty for performing any of the functions mentioned above as belonging to the realm of cosmetology—provided such acts be performed while such medical practitioners are engaged in the usual and ordinary duties of their vocation.

#### HOODWINKING LEGISLATORS.

Can you conceive of 3 more ridiculous propositions than these 3 proposed laws cover? The impudence of the "cosmetologist" in attempting to wrap himself in the cloak of a learned profession is laughable and might be harmless were it not for the fact that if given all the privileges asked for in this bit of legislation a tremendous amount of damage would certainly accrue to the innocents who fall into the hands of daring but ignorant members of the new "profession".

In relation to the chiropractor and naturopathy laws as proposed, we may express more concern—partly because the dangerous character of such legislation, if enacted, is of far greater import, and partly because the method of procedure of the guiding spirits among these faddists is so tricky and yet so seemingly innocent. The plea that their methods of treatment are always harmless, even when not beneficial, and that "personal liberty" should permit every person to choose his own medical adviser and any practitioner of the healing art to employ whatever method he prefers, is so artful that it imposes upon the honest and liberal minded legislator. On this point we cannot do better than quote again



from Kelly's pamphlet on the "Regulation of Physicians By Law":

"The officers of such an organization cunningly address the legislature on the assumption that legislators want to do justice, and that they are ever watchful to eradicate unfair conditions of every sort. They very adroitly proceed on that assumption, for it is true. Nearly every member of a legislature tries to promote justice, and has constantly in mind that worthy ambition. Every member's secret purpose is to conduct his legislative business in such a manner as to avoid criticism on the ground that his official conduct has been oppressive or otherwise unjust. Those who seek lower standards thus designedly approach legislators in their most indulgent moods, and seek the benefits of being thought by them to be friends of public freedom and justice, submerging under their feigned public usefulness their own selfish ambitions in the cause of ignorance and incompetence.

These self-appointed emissaries of freedom seek to delude the members of the legislature. They say, with the demeanor of pathos and injury, that they have an organization of many members; that these members have worked hard to prepare themselves to do the public a lasting service; that they are better qualified to practice healing than anybody else; that, notwithstanding all their efforts and all their wisdom, these available public benefactors are oppressed by the existence of out-worn laws, originally made by enemies of the public good for their own selfish purposes; that a person who wants to benefit the people by healing the sick is prevented by these laws from doing so. They say, and keep on saying, that they have a more useful fund of information for the people than that required by the law, and that they possess the only true qualifications for healing the sick.

These disguised appeals in behalf of the people, repeated without end, finally move members of the legislature, as solemn complaints against real or fancied wrongs always have aroused and always will arouse conscientious public officers. Legislators are thus impressed and finally often misled. By pathetic appeals of personal hardship, misrepresentation of the motives of adversaries, venomous attacks on educated physicians, and artful lobbying, these preachers of low standards finally induce some legislators to suspect that the old law was formed to compel all persons to submit to a particular and the same remedial treatment for every disease, regardless of the patient's needs or preferences, and to set up a villainous hierarchy of doctors to rule the state and tyrannize over the helpless sick. These promoters of low standards declare that the law prescribes a certain form of treatment and a certain kind of doctor for all ailments, to the exclusion of any other form of treatment and every other kind of doctor. They contrive and speak the most prejudicial slander about their adversaries in order to set the legislative mind against them. They declare that the law provides that you have to take drugs, accept treatment for your ailments from a doctor who heals by drugs alone and does nothing else, and that nothing else is lawful. Of course, there never was a law that provided such absurdities; but everybody, including the legislator, listens to idle nonsense, and few investigate.

The man who advocates reasonable standards tries to show the legislator that the existing law sets up reasonable and uniform standards for all

doctors and nothing more, like qualifications for all healers. But he often finds the legislative mind poisoned by the pretending supplicants for "justice", and sometimes ready to let down the bars to quacks and raise them still higher against physicians possessing scholarship, skill and professional integrity, ready to recognize one standard of scholarship for one cult and a different standard for another cult, but making "doctors" out of all of them. These misguided legislators are thus led to making easy the ways for the uneducated to get into the healing profession, and to making it possible for them to proceed legally in their ignoble careers of spreading diseases and misery for hire.

## Medical Ethics

### OBLIGATIONS.

John Hammond Bradshaw, M.D., F.A.C.S.,  
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If there are those who think they can dodge obligations, they are due for a rude awakening. A man may think he is perfectly independent and that he can sail his own course; be happy in his own way, do what he always likes with his own money, pick out his own associates and his company, avoid all disagreeable things, and set his own standards of living (including eating and drinking), but if he is a wise man and not a fool, he will get ample evidence that he is mistaken. It is a strange truth, but it is a truth nevertheless, that if he is well-to-do, or the possessor of great wealth, his obligations, instead of being less, are greater. If one thinks that riches promise, provide and assure full independence, again he will awaken to the fact that his obligations enlarge and increase in direct geometric ratio to his wealth. The very same can be said of his opportunities, his station, and his ability.

It would be ridiculous to imagine that it is the intention of the writer to disparage wealth! Anyone who is observing and whose walk in life lies at times among the wealthy can but remark what a great blessing financial independence may be. It is one of a man's chief obligations to himself (and family) and to his community to have his talents guided to the goal of obtaining a competence. He should keep this object firmly in view. It is a worthy object. But it is not the chief object! The pity is that it may overwhelm all others!

As we are all egotists, what are the chief obligations we owe to ourselves? It is absolutely sound ethical sense to remember

"Number One". If we should strictly obey the Biblical injunction, to sell all we have and give to the poor, we might be happy, and possibly be featured in the pictorial pages (after death) as a marvel (or a crank) and a praiseworthy example (non-living). But there is surely a psychologic meaning to this advice of the Master—that many are apt to miss altogether. In this workaday world, we have obligations to ourselves (and to our family) to bear (and to defray), which it would be unmoral for us to expect others than ourselves to stand.

Just as the prize-fighter hopes to "deliver the goods" only by careful and constant training and effort, just so, if we do not keep mentally and physically fit and refrain from acts that fray out our marvelous nervous system, or lower the tone of our wonderful musculature, or disorganize the coördinating functions of our delicate metabolism, our intellectual poise and acuteness of intellect will suffer. If they do, we will not be able to "deliver the goods" to our trusting and expectant patients, with whom we have always that silent unwritten contract to give the best that there is in us in their behalf.

## Esthetics

### CLEARING THE BOOKSHELVES.

There come times in the history of individuals as of nations when a decent respect for the opinions of mankind demands revolutionary action. The moment at last arrives when bulging bookshelves and battered bindings become an offense to the esthetic, and when nothing short of violent measures can redeem a library from the oburgations of the orderly. What course to pursue? Cast out the rowdy members from the bookshelves? Ay, but their very dilapidation bespeaks their worthiness. Why are they so worn, but that they have grown old in the service of affection, yielding themselves to the eager until buckram and canvas could endure no more? Surely old friends are not thus lightly to be discarded. A fie upon your impulses!

Then here, since you cannot in all conscience cast out the bedraggled volumes that have so often been the dear consolations of your solitude, at least relieve the congestion of your shelves by discarding those prim and proper rows that are so

patently still in their refulgence because they have lived unlaborious days. Ah, but conscience and desire rise up to stay you. Those neat tomes are still on the horizon of your intentions; they enclose within their unrubbed covers knowledge that you covet, curiosities of literature you have treasured against an idle or a gloomy day, obligations you owe to a liberal education. They are reproach embodied, but they are also delight in prospect. Nay, nay, let them be.

But surely those antiquated encyclopedias that stretch their bulk along the shelves can be spared. They have been superseded not once but once and again. The march of civilization has jostled them into semi-uselessness; efficient editorship has supplanted them with compendiums more coincident with the age. Yes, but since time has shrunk the records of events and personalities that figured large in the portly old volumes to brief notices in the new, where but in them can the lover of history turn for that fuller detail so much more picturesque than the pruned brevities of a recent edition? Impossible to let them go. The old encyclopedias must stand.

We have it now! The textbooks that hide their shabby backs so deprecatingly on the bottom shelf, out with them. No, no, that were to leave yourself to the distraction of puzzling genders and confusing prepositions and irregular verbs with never a grammar to fall back upon for aid. Let the Ciceros, and the Horaces, and the Virgils in the school texts go? But can you find your way through the classics without their notes? Beware, beware, lest throwing them out you throw out your all of classical resources. At least the arithmetics can go? Oh, fearful vision of calculations to be made and no table of measures at hand. Hold fast those text books, whatever else you do.

At last, at long last, the solution. There it lies in that heterogeneous mass of books, some of them still brave in gay-colored jackets that prove them of recent birth. Not so fast. Those new books are the volumes about which conversation is eddying today and which you must keep on hand lest discussion should involve you in dispute. And those love stories and romantic novels, and detective tales? Speak it low . . . they are for a rainy day.

The shelves must bulge for another year.

(From the Saturday Review of Literature,  
Nov. 27, 1926.)



## Observations from the Lighthouse.

### The Rôle of Chronic Maxillary Sinusitis in General Infections.

In the experience of Lorenzo B. Lockard and A. J. Argall (Colorado Med., 23:3, Jan., 1927), the maxillary sinus, or antrum, plays a predominant rôle in nasal sinusitis. Their opinion regarding its frequency of involvement is at variance with that usually held, but is based upon systematic study of a large number of cases. During a period of 2 years, every patient applying for nasal examination, except those with manifestly simple and easily recognizable conditions, as well as a considerable number in whom a general examination was made for hidden foci of infection, was subjected to careful and repeated roentgenographic study. The resultant percentages should be more reliable, therefore, than those based solely upon examination of patients with already suspected sinusitis. Of 500 cases showing radiologic evidence of disease in one or more of the sinuses, 355, or 71%, represented lesions of the antrum—203 bilateral and 152 unilateral, a total of 558 diseased antrums. The antrum alone (without accompanying lesions of any other sort) was involved in 238 patients; a percentage of 56. Against this, the frontal cells were found affected only 12 times without involvement of other cells, the ethmoid labyrinth 6 times, and the sphenoid cells 17 times. Pansinusitis was present in 14 cases. In the remaining 182, various combinations existed. In the majority of those showing combined lesions, the results of treatment proved the maxillary sinus to have been the most potent focus.

After elimination of the acute and subacute cases, about 30% of those with uncomplicated maxillary sinusitis were unaware of any nasal disease—a condition in marked contrast to those with frontal, ethmoidal or sphenoidal involvement. In the maxillary group constitutional symptoms were more generally the rule, the most prominent being recurrent and persistent colds. A symptom noted in a number of cases was the occasional occurrence of a sense of disagreeable odor or taste. Most of those chronic cases assume importance from a focal rather than a local standpoint.

In the respiratory tract the direct sequels are laryngitis, asthma, bronchitis, bronchiectasis and pneumonia. Among other diseases sometimes resulting from sinusitis are cardiopathies, nephritis, pyelitis, rheumatism, neuritis, retrobulbar neuritis, retinitis, uveitis and iritis. In children we have, in addition to the above, chorea, anemia, malnutrition, digestive disturbances, cyclic vomiting and those indefinite symptoms classed under the head of nervous instability. Recent experiments in the Department of Pediatrics, State University of Iowa, by Jeans and Floyd, show a surprising connection between nasal infection and intestinal disorders, especially cholera infantum.

Extensive confirmatory research (cited by the authors) shows the advisability of routine examination in all chest cases, whether acute or chronic. Even in patients with known tuberculous lesions, sinusitis frequently exists and is a powerful factor in maintaining a state of lowered vitality and mixed infections. In the asthmatic group the results of sinus treatment are frequently brilliant.

In cases without local symptoms, either subjective or objective, one must rely for conclusive evidence on the roentgenogram and lavage. With experience in taking and reading pictures, correlating the findings with symptoms and clinical observations on operation, it becomes eventually

possible to determine quite accurately the presence or absence of disease in almost every case. Inasmuch as most marked constitutional infections result from sinuses with nothing more than a hyperplastic membrane, and in which pus is not found at operation, our chief concern is not to determine the exact nature of an existing lesion, but to be able to decide whether a given sinus is normal or abnormal.

Believing the usual technic of simple puncture and drainage to be frequently misleading or inconclusive, the authors adopted, some 20 years ago, a method which permits a fairly large opening being made under the inferior turbinate, which remains patulous for 10 to 14 days, and through which daily lavage is possible. Even with this sizable opening there are many instances in which a large amount of water must be used before the tenacious secretions are detached, some cases requiring lavage on 2 or 3 consecutive days. To the round core of bone, which is removed by a hollow electric drill, painlessly and almost as rapidly as simple puncture is performed, there is nearly always adherent a complete section of antral mucosa sufficient to permit general deductions regarding its normality.

The authors stress in conclusion the following points: Latent paranasal sinusitis, particularly of the maxillary sinus, is a very common condition. Its rôle in secondary infections is fully equal to that of tonsils and teeth. In the majority of cases, symptoms are focal rather than local. The maxillary sinus is the most potent focal point in infections of the lower respiratory tract. Routine roentgenographic examinations are essential to recognition of sinusitis. No general examination, when a focus of infection is suspected, is complete without examination of the nasal sinuses. The correction of the sinusitis is frequently beneficial to the accompanying bronchial infection, and may effect a cure.

### NASAL SINUS DISEASE.

The prevalence of purulent infections of the nose and its accessory chambers, the relationship of such foci of infection to many systemic affections, and the complex problem of treating the nasal variations encountered, justify a review of recent literature upon these questions.

#### Manifestations of Paranasal Sinusitis.

Confirming the relative frequency of maxillary sinus infection, James H. Leyda (Colorado Med., 24:8, Jan., 1927) cites a study of 434 cases of definite sinusitis from which the following percentages were deduced: maxillary involvement 92.5%, ethmoid 65.5%, frontal 35.5%, sphenoidal 20.5%. He says that a purulent sinusitis may, by its direct extension to surrounding structures, or by toxins passing into the circulatory system, produce complications in any organ of the body, but he limits this discussion to the more common pathologic changes caused by direct action on the surrounding structures, of a purulent secretion arising from the paranasal cavities.

*Nose.*—Inasmuch as a suppurating sinusitis will have an effect on the nasal mucosa, any departure from normal in that membrane has its significance.

*Nasopharynx.*—The increase in lymphoid tissue resulting from a suppurating sinusitis may occur on the site of a former adenoid growth. Therefore, it may be concluded that many cases of so-called recurrent adenoids, requiring repeated removals, are in reality the result of a sinus infection. The proximity of the eustachian tube provides an avenue of infection to the middle ear, this being the most probable explanation of the vertigo so often.

complained of by patients afflicted with sinusitis.

**Pharynx.**—Infection of the tonsils from the sinuses is of the greatest clinical importance. Too much emphasis cannot be placed on thorough examination of the sinuses preceding any contemplated operation on tonsils or adenoids.

**Larynx.**—It is well known by laryngologists that an infection having its onset in the nose and communicating cavities will be followed by symptoms arising from the larynx, and that treatment, to be effective, must be directed to the nasal portal.

**Gastro-intestinal.**—Scant notice has been given to the possible diseases caused by continuous swallowing of a purulent secretion originating in the accessory sinuses, although it is well known that many diseases are caused by bacteria gaining entrance to the intestinal tract. A bacteriologic examination of the gastric juices from a fasting stomach in a case of profuse suppurating sinusitis shows a preponderance of microorganisms identical with the bacterial flora found in the sinuses. Gastric disturbances, obstinate vomiting and diarrhea may be traced to the descent of pus into the stomach, and the same is true of gastric ulcer, duodenal ulcer and cholecystitis.

**Respiratory.**—Pulmonary infections are a very prompt sequence to disease of the accessory sinuses. Mullins has proved that secretions from a diseased sinus enter the bronchial tree by direct inhalation and that the toxins enter the lungs through the lymph channels. In every one of 16 cases of lobar pneumonia Felty and Heatley were able to produce, by cultures of secretions from the nasal chambers, pneumococci corresponding in type to those found in the sputum. Although one should not form definite conclusions from this small series, the possibilities suggested by it should be borne in mind and further investigation stimulated thereby.

### Diagnosis of Paranasal Sinus Disease.

The procedure to be followed routinely in diagnosing sinus disease consists, according to Carl L. Larsen (Minnesota Med., 10:30, Jan., 1927), of (1) anterior and posterior rhinoscopy with suction, (2) use of the nasopharyngoscope, (3) transillumination and (4) radiography. In the first step one should observe carefully the general appearance of the interior of the nose, condition of nasal mucous membrane, presence of polyps, condition of lateral nasal wall, presence of discharge—its character, location and amount. With proper illumination this forms the sheet anchor of diagnosis in a study of diseases of the posterior group of sinuses. The nose should then be shrunk with a weak adrenalin and cocain spray and anterior and posterior rhinoscopy repeated.

Increased hyperemia or hypersecretion on one side is often associated with sinusitis on that side. Suction will frequently reveal a secretion of pus that was not observed before. If it comes from under the middle turbinate or flows back under the structure, one is dealing with an affection of the frontal sinuses, the anterior and middle ethmoidal cells or the antrums. The latter which is most common, can be diagnosed by irrigation, preferably by puncture through the nasal wall beneath the inferior turbinate. If pus is thus obtained the question arises as to whether the antrum is diseased or is acting as a reservoir. If the pus does not reappear in the middle meatus within half an hour one may feel sure that he is dealing with an isolated disease of the antrum. On the contrary, should pus reappear in the middle meatus within 15 or 20 minutes, it must come from the ethmoidal or frontal cells. It is then evident that the condition is a combined empyema and at this point we

may submit the patient to transillumination and x-ray examination, but these procedures should not replace further investigation along lines which are necessary to arrive at an accurate diagnosis. An effort should be made to probe and wash the frontal sinus and a high cribriform turbinectomy should be done in order to expose all the openings of the frontal sinuses, the antrums and the anterior and middle ethmoidal cells. This is of the utmost importance both for diagnosis and treatment.

In the differential diagnosis of suppurative disease of the sinuses emptying into the olfactory fissure (the sphenoid and postethmoid cells) exploration of the sphenoid is the initial procedure. If pus is found in the sphenoid, it must be determined whether it is secreted there or comes from the posterior ethmoidal cells. If, after washing out the sphenoid, the pus appears soon in the olfactory fissure, the ethmoidal cells are secreting. The sphenoid opening can be packed, to prevent its filling by ethmoidal secretion, and again washed out. If pus appears in the washing, after previously cleansing the nose and removing the packing, we know that the sphenoid itself is secreting the pus. As the postethmoidal cells may be empty at the time of examination, repeated negative results are necessary to exclude the postethmoids.

Transillumination should be done in a very dark room. It offers help with reference to the antrum but is of problematic value in regard to the frontal sinus and almost useless where the ethmoid and sphenoid are concerned. The nasopharyngoscope is of particular aid in diagnosing infections of the posterior sinuses.

Radiography is of inestimable assistance in diagnosing sinusitis, particularly of the frontal sinus and antrum. Correct interpretation requires the closest coöperation between clinician and roentgenologist. Cloudiness is not always evidence of disease but may be due to variations in anatomic structure, remotely healed lesions, recently healed lesions, existing lesions, faulty technic.

Nasal sinus disease in children is one of the most neglected fields in medicine. The ethmoidal cells and maxillary antrums have the greatest clinical significance in infants and young children. In every case a careful analysis of the patient's symptoms is important. In acute cases pain is a common symptom while in chronic cases it is surprisingly conspicuous by its absence. Frontal headache may be caused by an involvement of any of the sinuses, more particularly the frontal and antrum. Pain in and around the eyes is suggestive of ethmoidal infection.

### Iodipin in the Diagnosis of Nasal Sinus Conditions.

As a diagnostic aid in nasal sinus conditions, Henry M. Goodyear (Ohio State M. J., 23:143, Feb., 1927) calls attention to the very definite shadow cast by iodized oil. He reports a series of 34 sinuses which were injected with this oil, and presents 4 roentgenograms of one case in which the diseased area is clearly indicated. The antrums were injected through the inferior meatus by means of a straight trocar and record syringe. From 2 to 6 c.c. warm iodized oil (iodipin brand—iodin 40% and sesame oil) was injected into each antrum. The sphenoid sinuses were injected through the anterior wall with 2-4 c.c. oil. Injection of frontal sinuses proved more difficult and unsatisfactory because of escape of the oil by gravity. Patients were sent to the Roentgen ray room immediately after injection. Sodium iodide solution in glycerin gave insignificant shadows, and iodin



ointment in open sphenoids was without effect. The use of iodized oil, however, is an aid in detecting extension of the sphenoid sinuses into the greater or smaller wings of the sphenoid bone, and in determining the relation of the sphenoid sinus to the posterior ethmoid cells and the sella turcica.

**Some Reflections on the Diagnosis and Conservative Treatment of Diseases in the Nasal Accessory Sinuses.**

In writing of the difficulties in arriving at a diagnosis and in carrying forward a conservative plan of treatment, L. E. Brown states (Ohio State Med. J., 23:39, Jan., 1927) that 15% of the patients who come under his personal care are suffering from complications which would not have been present had the case been properly analyzed and treated in the beginning. The difficulties attendant upon diagnosis of sinus involvement he groups under 3 headings:

(1) The patient's symptoms cannot always be clearly and exclusively identified with sinus involvement. (2) The element of time is not given sufficient importance. Time is vital in the diagnosis of this condition because so much of it is required to complete observations, and because the hour of the day has much to do with detection of the spasmodic manifestations. Since there is a tendency in frontal and ethmoidal involvement for the sinuses to empty shortly after the patient assumes an erect position, examination should be made as early in the morning as possible. While the tendency in involvement of the antrums and sphenoids is for the sinuses to evacuate themselves better in the recumbent position, examination of these parts should be made in the afternoon. These facts cannot be emphasized too strongly, for upon their recognition depends the value of the majority of observations. Indeed, should x-ray pictures be taken by way of confirmation, their value will be almost obliterated by neglect of these simple rules. (3) Frequently, too much stress is laid upon mechanical aids to diagnosis. In the analysis of only one type of sinusitic condition are roentgenograms usually indispensable, viz. the identification of abnormalities of sinus structure. In general, however, the Roentgen ray should be considered as corroborative, not as a primary diagnostic adjunct.

Although none of the diagnostic aids are infallible, when used intelligently and the findings correlated, they take one well on the way to a correct diagnosis. Among these are suction (with observation of results), transillumination, nasal packs, the use of a tuning fork placed at the root of the nose, and, in case of suspected antrum involvement, the use of a newly devised instrument known as the antroscope. The difficulty and pain of diagnostic irrigation by puncture below the inferior turbinate have been almost eliminated by the use of a small especially designed trocar, which makes this puncture through the membranous portion of the nasal antrum wall.

Having completed the examination and correlated the findings, and being yet uncertain as to a definite diagnosis, one is forced to attempt to give the patient some relief, and it is at this point that surgery is frequently instituted to the great disadvantage of the patient. It requires a great deal of thoughtful consideration not to be misled by sinuses classified as "hazy" and showing some pathology, both in the roentgenogram and by transillumination, but which are not necessarily suppurative and will frequently clear under treatment. The condition may be merely inflam-

matory or, at most, a serous type of involvement, which may not only be aggravated by surgery, but its field of activity broadened. However, when surgical intervention seems to be indicated, it is always well to bear in mind Kyle's warning, that "no sinus operation can be approached with a sense of indifference". Also, when surgery is necessary, complete exenteration of all pathology should be the paramount thought in the mind of the surgeon, as "radical surgery is usually considered conservative surgery". Another point in conservative surgery which will increase the post-operative satisfaction of the patient and doctor alike, is the preservation of the middle turbinates. This can be accomplished in a great majority of cases by a very simple procedure: pressing the turbinate toward the septum until completion of operation, when it can be replaced in its normal position to perform its necessary and normal functions.

Postoperative care should be directed (1) to avoiding adhesions, (2) to stimulating the growth of healthy mucous membrane instead of the scab producing scar and granulation tissue, and (3) to preventing the neuralgias and neuroses resulting from the incorporation of nerve endings in the scar tissue.

**The Influence of Negative Pressure in the Sphenoid on the Optic Nerve.**

The fact that the opening of the posterior sinuses, although apparently normal, usually relieves optic neuritis, has led to the conclusion that the sinuses are in some mysterious way responsible for the eye condition. In explanation of the beneficial results which follow the opening of normal sinuses, Leon E. White (Boston M. & S. J., 195:-1195, Dec., 1926) advances the theory that the effect may be due to the relief from negative pressure within the sinuses.

Two phases of this theory require elaboration: (1) Is it possible for this condition to exist within the posterior sinuses? (2) Would such condition favor passage of the bacteria in the blood stream to the sheath of the nerve?

In answer to the first question it can be said that as negative pressure is a well recognized condition in the frontal sinus, antrum, anterior ethmoids and middle ear, and is brought about by a closure of their ostia, or ducts, if we reason by analogy, a similar condition should result from closure of the sphenoidal ostium. Analogy would also lead to an affirmative answer to the second question. As in Bell's palsy negative pressure within the tympanum seems to favor the migration of bacteria from some distant focus to the facial nerve, it seems logical to conclude that a similar condition of negative pressure within the sphenoid would favor migration of bacteria to the optic nerve. If it is conceded that a closed sphenoid may favor the invasion of the optic nerve by bacteria from the blood stream, the logical thing is to eliminate the focus that feeds the bacteria to the blood.

Treatment of these cases may be considered under 3 heads: (1) In about 50% of cases recovery will occur spontaneously. If any definite focus of infection is found, its removal is indicated, irrespective of the eye trouble. In the absence of definite findings, surgical intervention is contraindicated, and local treatment by astringent sprays and ointments is sufficient. (2) In 30% of cases the removal of nasal blocking is indicated, in addition to removal of the focus. (3) In somewhat less than 20% of cases it will be found necessary to open the posterior sinuses to prevent optic atrophy. Here all one's skill in diagnosis and treatment must be exercised. Procrastination spells failure. In these cases a definite focus must

be sought and eliminated if found; but above all else early surgical ventilation of the posterior sinuses is demanded. By this is meant the removal of the middle turbinate and the free opening of the sphenoid and posterior ethmoid cell. The other ethmoids should not be disturbed unless they show definite infection. It is at this point that many rhinologists become unduly alarmed and resort to unnecessary mutilation of the intranasal structures. White believes that there is here no more indication for a complete ethmoid exenteration than there would be for a mastoidectomy in the ordinary case of Bell's palsy, and a bilateral ethmoid and sphenoid exenteration would be as senseless in these cases as a radical mastoid for this transitory paralysis. While he has found several sphenoids with thickening of the nasal mucosa on their anterior wall, and considerable edema of the lining membrane, he has had but one case in which he could definitely state that the ostium was closed.

White doubts if it will ever be possible definitely to diagnose many cases of negative pressure in the posterior sinuses, the difficulty being due to the remoteness of these structures. The floor of the frontal, the anterior wall of the antrum, and the thin orbital plate of the ethmoids can be palpated and a tentative diagnosis at least be made. The transparent drum membrane permits inspection of the middle ear but in the sphenoid the most that can be expected is to discover sufficient obstruction or swelling to render this condition possible.

In a series of 60 cases exhibiting some type of optic nerve disturbance, teeth and tonsils appeared to be the foci in 70% of the total, while the ethmoids were involved in less than 10%. In only 15% were the sphenoids and posterior ethmoids opened and even in some of these it was unnecessary. Postoperative cicatricial obliteration of the sphenoid ostium with resulting negative pressure was found in one case.

#### Indications for the Radical Frontal Sinus Operation with a Report of Cases.

The term radical frontal sinus operation, as used by Atkins (New York State J. Med., 27:12, Jan., 1927), implies the Killian operation, which has for its object obliteration of the frontal sinus and the removal of the adjacent ethmoidal cells. The author presents a review of 84 cases in which he performed this operation and which he classifies under the following groups:

Group 1.—Operation urgent because of alarming symptoms, including intracranial or orbital involvement. As a rule these are acute cases of very marked virulence or acute exacerbations of chronic cases in which the bony walls of the frontal sinus have been softened or necrosed by prolonged suppuration.

Group 2.—Operation not urgent but indication positive. This group includes cases due to (a) failure of intranasal treatment and operative measures to relieve distressing symptoms, such as headache, local tenderness, recurring edema of the upper eyelid, neuralgic pain, frequent acute exacerbations, persistent foul discharge; (b) fistula; (c) cysts and mucoceles. This group is made up of chronic cases and includes the majority operated on. Intranasal measures ordinarily fail because of the anatomic structure of the frontal sinus. It is in this group that the x-ray study is particularly valuable.

Group 3.—Operation exploratory because of uncertain diagnosis. This includes new growths, orbital tumors simulating frontal sinus involvement,

and frontal sinusitis as a possible source of focal infection.

In the first series of 42 cases, 6 patients presented intracranial complications. There were 5 brain abscesses, 1 of which was accompanied by cavernous thrombosis, and 1 meningitis. All 6 cases showed orbital involvement—exophthalmos, chemosis of the ocular conjunctiva, limitation of movement or fixation of the eyeball and swelling of the lids. Three were acute cases with no history of previous attacks, and 3 were acute exacerbations of a chronic process. All of these patients had severe headache and high temperature; 3 had a stiff neck and positive Kernig; 3 showed fundus changes and 1 had a positive blood culture. There was 1 recovery. Eleven patients in this group were operated on because of the urgency of orbital complications. There was gangrene of the conjunctiva in 1 case, limitation of movement of the eyeball in 6; all showed some temperature reaction, which was septic in character in 5 cases. In 1 case a metastatic abscess of the hip developed. Headache and severe pain were common symptoms. Necrosis of bone occurred in all but 2 cases, involving principally the floor of the frontal sinus, and in 1 case the author was obliged to remove a large part of the floor of the orbit because of necrosis. The anterior and posterior walls were both involved in 1 case, which disclosed an epidural abscess. Ethmoidal and antral involvement occurred in all cases. Seven were acute in onset and 4 were acute exacerbations of a chronic process.

In the second group there were 10 cases in which operation was performed because of supuration of long standing, associated with frontal headache, tenderness, and in some instances swelling and edema of the soft parts about the orbit. The histories varied in duration from 8 months to 25 years, and all patients had received intranasal treatment. Four cases showed fistula or sinus formations; 2 followed an incision of a localized abscess about the orbit, and 2 followed the spontaneous rupture of an abscess. All of these cases presented well marked signs of frontal sinus involvement, and probing disclosed necrotic bone. In most of these cases x-ray examination demonstrated the reason for their condition.

In the third group there were 6 cases, especially interesting because of the doubtful nature of the pathology.

In concluding, Atkins observes that as 95% of all frontal sinus cases are relieved without radical operation, only a small proportion need special study as to indications for the operation. In establishing indications for the radical operative procedure on the frontal sinus the following points should be considered: (1) Urgency of symptoms. In a small proportion of cases, due to a virulent infection, complications occur in a very short time which necessitate immediate operation. (2) Nature of the sinus involvement. If there has been some previous operation which has failed, or if there is a fistula leading into the frontal sinus, the indication is plain. (3) The condition of the nose. Has the intranasal treatment been thorough? It is largely a question of drainage. (4) The age, sex, social standing, residence and occupation of the patient must be taken into account before advising an external operation. Prolonged frequent treatments are impossible in some cases and a radical operation is the easiest and most logical way out. The question of deformity is of minor importance compared with the danger of not operating, and with the newer methods of plastic surgery will become a secondary consideration.



## In Lighter Vein

### Serambled Sexes.

Gather round and hear Annabelle rave;  
She is one you might call fashion's slave.

In a bobber shop chair  
She dozed off, I declare,  
And the bobber man gave her a shave.

—G. A. Leedy, Youngstown Telegram.

### A Self-Announcer.

She—"It's nearly six weeks now since baby was born. Have you told the registrar yet?"

He—"If the registrar lives anywhere within ten miles' radius he'll know already."

—The Passing Show (London),

### The Sinner.

"A gentleman called me handsome yesterday," said a rather elderly lady to her minister. "Do you think it is sinful of me to feel a little proud of the compliment?"

"Not at all ma'am," replied the minister. "It is the gentleman who is the sinner, not you."

—United Effort (Pittsburg).

### Ground for Complaint.

"I 'ear Bill 'Awkins is suin' the company fer damages."

"Why, wot 'ave they done to 'im?"

"They blew the quittin' whistle when 'e was carryin' a 'eavy bit o' wood an' 'e dropped it on 'is foot."

—London Opinion.

### His Revenge.

Friend wife came into the sitting room, a determined look in her eyes. "I shall have to punish those children," she began.

"What have the little scamps been up to now?" asked hubby, looking up from his newspaper.

"Why, they've made a mess of my sewing room," explained his wife. "Needles, reels of cotton, scissors—everything has been hidden away in the most unexpected places. It's exasperating."

Her husband laid down his paper and smiled. "I did that," he said calmly. "You tidied up my desk so beautifully the other day that I thought it only fair to return the compliment. So I tidied up your sewing room."

### Slighting the Judge.

Two lawyers before a probate judge recently got into a wrangle. At last one of the disputants, losing control over his emotions, exclaimed to his opponent:

"Sir, you are, I think, the biggest fool that I ever had the misfortune to set eyes upon."

"Order! Order!!" said the judge, gravely. "You seem to forget that I am in the room."

### Contrary.

"An' yo' say dat little twin baby am a girl?" inquired Parson Jones of one of his colored flock.

"Yassuh."

"An' de other one, am dat of the contrary sex?"

"Yassuh, she am a gal, too."

### Answered.

Hard (in street car)—Why don't you put your feet where they belong?

Boiled—If I did, you wouldn't be able to sit down for a month.

## Medical Book Reviews.

(Department Director, Royce Paddock, M.D.)

### INTERNATIONAL CLINICS.

Vol. IV—Thirty-sixth Series, December, 1926.

Among the usual wide variety of subjects presented, in this bound quarterly, there are several which seem of unusual interest. A clear exposition of the hazards of diabetes melitus—acidosis, coma, and infection—is contributed by W. R. Campbell, of Toronto. A more original paper is presented by H. J. Bagg, of New York, in regard to the origin of defects in the limbs of certain strains of mice. By means of irradiation, by which the investigators attempted many times to alter the germ plasm of mice, several strains showing congenital defects of the feet were obtained. These are analyzed and the defects demonstrated by photographs. A general survey of goiter in Switzerland, with excellent microphotographs, by C. Wegelin of Berne, seems complete, including in brief form the many sides of this question. Epidemiology in general is the theme of a lecture by Kisskalt, of Zurich, who emphasizes the wandering nature of the contagious diseases and the reasons for the total disappearance of many of the older epidemics. A small article on amebiasis by W. A. Kueven, of Leiden, provides some interesting data on the relations between the diseased and carrier state of this infection. Pelvic infection is clearly outlined by F. W. Marlow, of Toronto, with special regard to the natural means of resistance, and the special pathways for each type of invading organism.

In the more strictly clinical section, the main medical article concerns novasurrol diuresis in cirrhosis of the liver as a remedy of use in combating the ascites of the atrophic type of this disease. This article is contributed by L. F. Barker, of Baltimore. It presents a single case in full, with a brief discussion of the cirrhoses of the liver and compact directions for functional tests of the liver. This article contains considered information which is not easy to get elsewhere. Pal, of Vienna, contributes his views of hypertension in the following article.

Two further items concern functional heart disease. One of these, by J. J. Walsh, of New York, points out the possibility of many years' activity with premature systole. The other, by L. F. Bishop, of the same city, presents 8 cases of "bundle branch block" of the heart, seen in the last 7 years of the contributor's practice. Electrocardiograms and roentgenograms as well as clinical histories are shown. The last article in this section concerns pneumonia. It contains much statistical analysis which serves mainly to emphasize our inability to cope with this disease.

Concerning surgery, A. Eiselsberg, of Vienna, in a rather varied clinical lecture, makes some concise and quaint observations, mainly on the surgery of the gastro-intestinal tract, especially gastric ulcer and carcinoma. Steinmann, of Zurich, describes briefly fracture treatment, with immediate mobilization, and the means of producing such mobilization in 24 cases, including almost all of the long bones.

W. M. Brickner and H. Milch, of New York, give in rather complete form the experience of the Broad Street Hospital, New York, with gas gangrene infections (4 cases) since the War, as well as the discouraging results following the use of the present antibacterial serum. They also discuss the responsibilities of the surgeon in spinal cord in-

juries, describing 3 cases. M. Behrend illustrates varied operative procedures. The cases of tuberculosis of the thyroid from the Cleveland Clinic are reported by C. C. Higgins.

In general, the wide variety of subjects is impressive. Both theory and practice are represented, and much valuable information is included, although some articles seem to give little of benefit to the ordinary reader.

## Communications.

### A VISIT TO THE ROYAL GLASGOW INFIRMARY.

(Letter from John Hammond Bradshaw, M. D., F.A.C.S., Grange, N. J.)

I was in a dilemma. It was my last day in Scotland. I had reserved the day for a visit to the Royal Infirmary and a Scotch friend had just come in and proposed a game of golf on a well known course. But I remembered that only the day before I had been to Gleneagles where in the bright crisp air of the Scotch Highlands I had played a game on links that are said to be the best golf course of the Scotch interior. The neighboring battlefield of Bannockburn and the proximity of Stirling Castle itself afforded a genuine thrill, while the snow covered Grampians made a wonderful contrast to the closely cropped fairways and greens of the links. Low over the mountains hung the December sun, affording such cloud effects as can only be seen in a Landseer or a Turner. My Scotch caddy, about my own age, I think, took as much interest in my shots as I did myself, and we would groan in unison at a poor one, or shout at a lucky put.

There is a present day craze for thrills. I had obtained my thrill from golf. Why not let the memory suffice? So I decided to visit the Hospital. There I was rewarded with another thrill. No true surgeon would be in danger of sleeping sickness visiting this cradle of antiseptic surgery. Here it was (1861-1869) the great Lister (b. 1827), within this very Royal Glasgow Infirmary, first had his inspired conception. The human brain should do something besides *think*! Lister first thought, then acted, and then accomplished. Pasteur had shortly demonstrated the germ in all its power of wickedness. But it was Lister who applied this knowledge to its influence in the healing of wounds. There are comparatively few outstanding discoveries or inventions of man that have had such tremendous influence for the welfare of the race. If the work of Galileo were subtracted from modern civilization, the whole of that civilization would collapse like a house of cards. "Not a single dynamic device for the utilization of power for the transformation of the energy stored up in Nature can be designed today without the use of the mechanical laws discovered by Galileo." Edison gave us the electric light. But Lister showed us the way to exclude germs from our wounds, which has saved, and will save, countless millions of the human race from protracted illness, suffering and death. What matters it now that Lister called the beginning of his work *antiseptic* surgery! The word *aseptic* was then not coined and never would have been known if it had not been preceded by the great antiseptic idea. Such human pests as inflammation, suppuration, pyemia, surgical fever, hospital gangrene, erysipelas, childbed fever and

even cholera infantum (to name only the most common) like a pestilence were torturing a suffering world. The average span of the human race was a little over 40 years. Today it is almost 60. We must give Lord Lister the credit and the glory for being a big factor in adding almost 20 years of life to the human family. But no array of figures can tell us the saving in amount and degree of pain and suffering to mankind. And when it comes to increased efficiency and economies, the brain is staggered with the quotient.

I thought it was fitting for me to visit this shrine, for it is a shrine, and should so be regarded always. The very setting of the Royal Glasgow Infirmary is unusual. It stands at the base of a hill, the "necropolis of Glasgow," where once the Druids of Eld staged their mysterious rites (as proven there by imperishable records of stone). Here a "Mansion House" has been erected of many stories, many towers and of many rooms. Even its approach is impressive. The ancient cathedral of Glasgow guards the south. The monument of the Great Reformer, John Knox, looks down upon it from its hill, guarding it forever with its calm Presbyterian gaze. This "guest house" is free. It is always crowded, although it shelters between one and two thousand souls (including patients, nurses and attendants). It has a waiting list of from 500 to 600 patients (waiting their turn to get in). To me, this was so difficult to comprehend that I asked twice to be sure I was not misinformed. Dr. Grant, the superintendent, received me, with Scotch hospitality; and while I smoked one of his own brand, he gave me many interesting points of information. Between 7000 and 9000 operations take place in this hospital in 1 year. It has the distinction of having installed the first Roentgen ray laboratory in the whole world (1896). The kitchen on the roof, with its own roof of glass, is surely unique. We all know that odors, like prayers, ascend, but the smells arising from the cooking of so many meals cannot here offend. The sister in charge of this kitchen, which at that moment was serving almost 2000 dinners, demonstrated the system that was so perfected that it almost seemed like a rest period. She especially wanted to know if we had anything in the "States" that was an improvement on the well-known copper-bottomed-hot-water-compartment-food-containers for ward service. She felt the need for something better.

The Royal Glasgow Infirmary is part of an important Medical School. "Co-eds" must be encouraged, as here we find over 200 girls, mostly Scotch lassies, taking the course. It was a rare pleasure to see these rosy-cheeked girls doing the ward work like any other medico. My attendant simply remarked that soon most of the doctors would be lassies!

I was privileged to see the Training School for Nurses with its 500 pupil nurses. The course is 4 years, after which they can demand about \$16 a week for a 24-hour day. They are well taken care of while here, as I can testify by visiting their recreation and bedrooms; the latter cozy for the one occupant, with its bright counterpane and its reading lamp. Many of the rooms, and all of the long corridors, of this huge building are wainscoted high with tiling, while the floors are mostly of terrazo. The operating rooms at the time of my visit were quiet. Alas, the great Macewen was dead! One of the surgeons found preparing for an operation gave me details of his technic. Gloves are put on wet (for economy). He preferred painting the skin with strong bi-



chloride of mercury solution (1:80) preparatory to operation, and washing this off with "methy-lated spirit". Tincture of iodine he never used, especially for abdominal work, thinking it dan-gerous.

As the infirmary is surrounded on 2 sides by the graves and monuments of the long departed, I was interested to find many of these inclosed in heavy wrought iron cages on all sides and on top. This was a precaution against body-snatch-ers, for in the early days of anatomy a few guineas could purchase by theft, a recently interred be-lowed one; hence this precaution against the "resurrectionists".

Without extending this letter to a much greater length, I may be pardoned if I give the inscrip-tion on the stone of one of these graves:

1612

Doctor Peter Low

The Founder of the Faculty of the Physicians and Surgeons.

Stay Passenger and View this Stone  
For under it Lyes such a One  
Who cured Many while He lived,  
Soe gracious that Noe Man Grieved.  
Yea, when his Physics force oft Failed  
His Pleasant Purpose then Prevailed,  
For of his God He got the Grace  
To live in Mirth and Die in Peace.  
Heaven his Soul—His corpse this Stone,  
Sigh Passenger and Soe be Gone.

One more epitaph worthy to be scanned by the rhetorician:

1616

Gazers on this Trophie Tombe  
Send out Ane Grone  
For want of Her whose Life  
Once born of Earth  
Lies in Earth's wombe  
Lived long a Virgin  
Then a spotless Wife  
Here lies inclosed man's Griefe  
Alone.

Possibly my visit to the Royal Glasgow Infir-mary tells too little of the work of the scalpel. But many are busy there and almost constantly at work. I am aware that my letter deals largely with the Past. Asking your indulgence, there-fore, I beg to add that it is often helpful for us to have memories—lest we forget.

Note. I wrote the above letter in Scotland about December 5, 1926. Upon my return to America I found published in Surgery, Gynecology and Obstetrics for December, 1926, a most interesting oration by Young (Regius Professor of Surgery in the University of Glasgow) on "Sir William Macewen and the Glasgow School of Surgery". This had been the John B. Murphy Oration delivered before the Clinical Congress of the American College of Surgeons, Mon-treal, October 25, 1926. As I had not attended this con-vention and of course had not read the oration I had missed the chance to mention it in my letter. No one should miss rereading this remarkable article. The Illustrations of the scenes so imperfectly above sketched by me were gladly welcomed by one who had no facilities to obtain such an addition to the subject.

## Current Events.

### WOMAN'S AUXILIARY TO THE MEDICAL SO-CIETY OF NEW JERSEY.

At the last annual meeting of the State Medical Society, the House of Delegates determined upon the formation of a Woman's Auxiliary, and ap-pointed a special committee on organization, with Mrs. Samuel Barbash, of Atlantic City, as Chair-man. Immediately afterward, the newly elected president, Dr. James S. Green, issued a letter to the presidents of all the county medical societies requesting them to coöperate in this work, and to start off by appointing a local representative—preferably the wife of the county medical presi-dent—to aid in organization plans.

Two possible modes of procedure suggested themselves; to form a state society auxiliary and then develop county branches, or, to organize auxiliaries to the county medical societies and then amalgamate these into a state body at the time of the next annual convention of the State Medical Society. After due consideration of the amount of time and labor required to effect the ultimate pur-pose, the second plan was decided upon.

To facilitate the work and to prevent possible misunderstandings arising in the future, the Exec-utive Secretary prepared a short address to the ladies setting forth the purpose and objects of constituting auxiliaries, and denoting the limita-tions to be placed upon such organizations; and, at the same time, drafted a tentative Constitution and By-Laws for both state and county auxiliaries. It is not essential that the rules governing county auxiliaries shall be absolutely alike in all particu-lars, but it is desirable that they shall be uniform in respect to all important matters relating to the State Auxiliary or to relations with one another. For instance, annual dues may be adjusted to lo-cal conditions and to the activities any auxiliary may determine upon; slight differences in the amount of dues charged will not vitally concern neighboring county auxiliaries. By contrast, it is important that expression of the objects of organi-zation, and rules governing admission to member-ship and selection of delegates to the State Aux-iliary, shall be the same throughout the state. Likewise, in submitting a draft of Constitution for the State Auxiliary, effort has been made to have it accord with that of the Auxiliary to the Ameri-can Medical Association.

These documents are presented here for your information, and as a matter of record:

### ORGANIZING A WOMAN'S AUXILIARY TO THE COUNTY MEDICAL SOCIETY.

(An address by the Executive Secretary of the Medical Society of New Jersey.)

Madam Chairman and Ladies:

As has already been announced, the purpose of this meeting is to organize an auxiliary to the county medical society, which organization shall in conjunction with other similar county groups constitute a woman's auxiliary to the Medical So-ciety of New Jersey.

It is conceivable that you would like to know the why and wherefore of this movement, and it devolves upon me to explain something of its his-tory and to give you satisfactory reasons why you should participate in the development of a county, state and national auxiliary to the organized medi-cal profession.

The word, "auxiliary", is defined by the Stand-

ard Dictionary as "giving or furnishing aid or support, especially in a subordinate or secondary manner—supplementary—accessory" and, as an example for using the term, the Standard quotes this sentence: "Auxiliary to this \* \* \* the Nebraska Doctrine \* \* \* is to educate and mould public opinion". I take the liberty of presenting this definition because it so well expresses the real objects and purposes of this movement toward organizing an auxiliary to the Medical Society, and at the same time so definitely states the limitations, about which I believe there should be a clear understanding, as a means of avoiding future trouble.

If I am correctly informed, the idea of constructing a woman's auxiliary to the medical profession was born in the brain of a Texas woman, the wife of a physician, some 7 years ago. Following that suggestion, and with the approval of the American Medical Association, 28 states have since organized such auxiliary bodies and these are welded into a Woman's Auxiliary to the American Medical Association. At the last annual meeting of the Medical Society of New Jersey, Mrs. Wayne W. Babcock, of Philadelphia, representing the National Woman's Auxiliary, as organizer, explained to us the advantages to accrue from joining in the successful development of this idea, and the State Society unanimously accepted and approved the proposition.

There are a number of reasons that might be given for establishing a woman's auxiliary to medical societies. Speaking of the definition of "auxiliary", the President of the Kentucky Society, Mrs. Stilley, said: "To be sure, we 'doctor women folks' have always aided our men—cooked their meals, kept their homes, answered the door bell and telephone, and cheered them when they came home worn and weary from bedside vigils. Some of us have even acted as nurse assistants during emergency. But there is a necessity for keeping in tune with the times. \* \* \* The purpose of this auxiliary is to assist the profession in doing the needful things in health movements, carrying from the city to the utmost rural districts the program of better health and of making better health contagious. Is not this a rare opportunity offered to mothers, wives and daughters of doctors, an opportunity which is not, and cannot be shared by other women: to serve our communities as auxiliary educators and distributors of health and sanitary measures—not doing the technical work of the professionally trained teachers or nurses, but, *our* work of properly interpreting the ideals and aims of our physician husbands, fathers and brothers. And, while we are thus doing, it is a most opportune time to create good fellowship and sincere friendship among the doctors' families, which can best be accomplished by social intercourse and a mingling together for a period of relaxation from the sterner duties which perforce must be met daily and hourly by the physician."

Referring to the social aspects of a physician's life, a prominent member of the profession (Edward R. Palmer, of Louisville) recently said:

"Of the hundreds of doctors that I know, there is little more than one-half of a hundred with whom I am sufficiently well acquainted to be able to say off-hand whether or not they even have wives and children. And with possibly only half of this small number, am I intimate enough to be on speaking terms with their families. Every day of our lives we are passing on the streets, in shops and lobbies of theaters, as total strangers, women and children, the wives, daughters and sons of brother doctors. This is a distressing state of affairs; one that should continue no longer, for people who have so many common points of interest as doctors and their families should be in closer

communion. Here, it seems to me is a fitting starting point for the activities of your organization. You women with your natural social instincts can soon see to it that we know each other, not simply as doctors, but as men and fathers of families, and that we become acquainted with each others' families. Then, having accomplished this, you can, by broadening your activities, bring us to a better relation with the people of the community, make it so that it can no longer be said, 'that in the absorbing interest in the scientific side of our profession, we are losing sight of its humanitarian aspect', and thereby restore us to the position held by our fathers; that of trusted and beloved friend as well as medical adviser."

We found the first portion of the above quoted remarks of striking import when we attempted to find out which members of this county's medical society have wives, and doubtless we omitted some names when invitations to this meeting were issued, despite the fact that an effort was made to secure a correct list.

The Treasurer of the National Woman's Auxiliary, Mrs. Irvin Abell, addressed a letter to one of the state organizations, in the course of which we find the following:

"When we have in mind that there are 92,000 doctors in the American Medical Association it is quite logical that an accompanying auxiliary body drawing its membership from the wives and families of these doctors should be formed, and equally logical to assume that with proper vision and direction it will attain worthwhile results which will be creditable to it and to the profession which it aids. The wives of doctors more so than those of any other group of men enjoy with their husbands a community of interest which extends beyond the confines of the home, and the auxiliary offers an opportunity of expressing distinctively such interest through collective action. Some of the channels which have already been utilized by it are pure milk, and pure food surveys, distribution of disease prevention knowledge by procuring subscriptions for Hygeia, the establishment of social service committees in schools, coöperating with parent-teacher's associations in conducting health programs, and with the doctors in conducting health meetings in which the public were invited, participating in child welfare conferences, taking an active interest in community sanitation and in a host of activities which have brought the members of doctors' families into close and pleasing contact, filling a niche which can be filled in no other way."

It would seem to be evident that there exists a glorious opportunity for the women members of physicians' families to act as liaison officers between the medical profession and the numerous lay organizations, and to participate in the altruistic work that constitutes so large a portion of the doctor's obligation to society.

It may not be amiss, at this point, to sound a note of caution concerning the direction of these energies along proper channels. A recognized force for good may readily become a power for evil if misdirected or permitted to run without proper direction. It is even possible that good forces emanating from different sources, and both aiming at desirable results, may come to grief through conflicting or ill-timed movements. Co-operation must be the rule; interference must be avoided. The President-elect of the Woman's Auxiliary to the American Medical Association, Mrs. John O. McReynolds, chosen at the last meeting in Dallas, Texas, has spoken so wisely upon this point that her remarks may well be quoted from the Kentucky State Medical Journal of December, 1926:



"There are many phases of our work that are of tremendous importance and should be profitably considered by each state and local auxiliary, but in this discussion I can refer to only 2 features that stand out with especial prominence at the very threshold of our national endeavors. One concerns our attitude in different kinds of political situations, and the other, our relation to the growing problem of preventive medicine which is such an important factor in the medical profession of today. With reference to the first, it is evident that utmost care and discretion should be exercised at all times, so that our organization, instituted for the purpose of promoting the spirit of fraternity and goodwill and helpful influences, shall not become perverted into channels of political discord by injecting the poison of petty personal animosities into our cup of good deeds which we might otherwise carry to the people of our country with the endorsement and the benediction of the great profession of the healing art.

With nearly half of the United States already organized after only 4 years of existence the entire nation will have formed auxiliaries within a very short time and we will become a veritable army of conscientious physicians' wives with a powerful influence, and this is just the reason why we should zealously guard against the injudicious use of this power. It would seem advisable to adopt a definite and well defined policy in this respect, which could be arrived at by a frank and free conference with the wise and experienced leaders of the medical profession. It is most important that our auxiliaries should exert their influence in matters involving principles, and not in personal preferences, and even in those cases in which certain fundamental principles are involved it would be judicious that each local, state, or national auxiliary should take specific action only after being requested by a committee from the medical organization of which that particular auxiliary is a part. In this way county auxiliaries would act in connection with county medical societies, state auxiliaries in coöperation with state medical associations, and the National Auxiliary at the request of the American Medical Association. By this means all of our work would be what our name implies—auxiliary, an organized reserve force, and could never become out of harmony with any part of the great medical profession. The auxiliaries were created to help, thereby leaving all political responsibilities in the hands of the various medical organizations.

It seems to me our greatest work lies in the realm of promoting better social contacts in medical circles, in stimulating philanthropic impulses and endeavors for the welfare of our people, and in the education of the public in matters pertaining to health. We are not a club, but an organization, every one of us members of one or more social, literary or civic clubs—marvelous instruments through which we might broadcast our gospel of health, urging each club in every state to provide at least one health program during the year and emphasizing, through this avenue, the importance of *annual physical examinations on the birthdays* of the members of their households. We could soon build highways of health and happiness all over our land, and this might inspire our people to erect living monuments to the soldiers of the healing art who have fought so valiantly to conquer our greatest enemy—disease. These monuments need not be of marble, or granite, or bronze, but made of the more enduring substance of gold in memorial foundations, giving forth day after day, year after year, throughout the coming ages, the same humane emanations and helpful influ-

ences that characterize our great physicians—our illustrious heroes who fight to save lives—not to destroy them."

I have quoted at some length from these several addresses presented by wives of physicians who have had experience with this work in other states, partly because we desire you to understand that this county meeting today is part of a nation-wide movement in which all the component societies should work harmoniously and with the same purposes in mind.

You may well ask, however, whether there is any specific work awaiting the attention of a local organization, and in anticipation of such a question we may mention a few matters in which the physicians of New Jersey will appreciate your aid.

(1) Educational Campaigns. The State Medical Society is now conducting a campaign of public education in medical matters, making use of the radio, moving pictures, newspapers and pamphlets for broadcasting information in the line of preventive medicine, and supplying speakers to address lay organizations upon the prolongation of life through the safe-guarding of health. You can, individually and collectively, help materially in furtherance of this program; for instance, by supplying speakers to address Women's Clubs, or by securing engagements for speakers from the medical society.

(2) Legislation. It not infrequently happens that Bills are introduced into our municipal, state or national legislative halls, which, if enacted into law, would seriously menace the public welfare. On the other hand, desirable health legislation often languishes for want of public appreciation and support. Without becoming "politicians", in the objectionable sense of that word, you can wield considerable influence for good through organized opposition to bad acts or through support of good bills; an influence which you can exert in unison with the efforts of the male members of your families.

The medical profession is not seeking enactment of any special or selfish legislation, and will merely ask your aid in protecting the health interest of the community.

(3) Social Functions. Reference has already been made to the desirability of a more intimate acquaintance among members of physicians' families, but this is only one of the social effects to be gained. When women accompany their husbands or sons or brothers to state or national medical society meetings they too often feel that they are *with* but not *in* the "party". You can, if you wish, effect a closer tie with your professional relatives and become a more real partner in his pleasures as well as his work. Unity of purpose, association in service, will help both sides of the family and help to develop one large family within the profession.

Your influence can aid very materially in making medical society meetings more enjoyable; the doctor generally has too much work and too little play, and you can bring to these scientific conferences a social factor that will make them more truly recreational in character.

Not the least important thing for you to do, will be to stimulate attendance at medical gatherings. See to it that your man regularly attends medical meetings. The records show that only about 15% of the State Society members attend the Annual Convention. Is your man among that number? It is important that he should be, for a study of the list discloses that this small group includes most of the successful and prominent

members of the profession. Do not get and do not let him hold the idea that he may lose something by absence from home to attend these meetings; what he gains by such fraternization far more than compensates for a lost fee. As you directly profit by his advancement, it is your duty to promote his development in this way.

(4) Home Building. Having spoken of the tasks in line of general welfare and of personal interest, we may suggest that if you seek a specific task in the interest of the organization to which you are to be auxiliary, there is one even now awaiting your aid and to which you may bring the support that will crown it with success. Women are by nature home builders. Ours is the oldest state medical society in the United States—161 years old—yet it has no home, no local habitation, no fixed headquarters from which to conduct the tremendous work it is today carrying on. An effort is being made to remedy this situation, and in this you may find a congenial labor worthy of your best energies.

Perhaps we have sufficiently indicated the fact that there is a large field of usefulness for the proposed organization, and if you accept that as proved we trust you will immediately constitute yourselves the assembled auxiliary to this county medical society, and proceed to the adoption of rules and regulations and the election of officers.

#### PROPOSED CONSTITUTION AND BY-LAWS of the

*Woman's Auxiliary to the ——— County  
Medical Society.*

##### Article 1.—Name.

The name of this organization shall be the Woman's Auxiliary to the ——— County Medical Society.

##### Article 2.—Object.

The object and purpose of this Auxiliary shall be, as its name implies, to serve as an ally to the ——— County Medical Society; to aid in promoting the aims of that organization, through the wives, daughters, mothers, sisters and widows of physicians who are or have been members of the said medical society; to assist in entertainment at county, state, or district medical meetings; to promote acquaintanceship among the members of physicians' families, to the end that local unity and harmony may be increased; and, in every way to cooperate with the county medical society in its public welfare work. This Auxiliary shall not take any action contrary to or independent of the advice of the local county medical society.

##### Article 3.—Membership.

The membership of the Woman's Auxiliary to the ——— County Medical Society shall be composed of the eligible wives, daughters, mothers, sisters and widows of members and former members of the said county medical society.

##### Article 4.—Officers.

(a) The officers of this Auxiliary shall be a President, two Vice-Presidents, a Secretary and a Treasurer, and these officers shall constitute the Executive Committee. In addition, the Auxiliary shall choose two delegates to the Woman's Auxiliary of the Medical Society of New Jersey; the Constitution of the latter Society providing that each county auxiliary society shall be entitled to representation by its President, or her alternate, and 2 Delegates or their alternates.

(b) The above named officers and delegates shall

be elected by ballot at the Annual Meeting of this Auxiliary.

(c) The term of all officers shall begin at the close of the Annual Meeting at which said officers shall have been elected and shall continue until their successors have been duly elected and installed.

##### Article 5.—Meetings.

Meetings of this Auxiliary shall be held at such places and times as may be most convenient for a majority of the members and shall be at the call of the President. The Annual Meeting, at which election of officers and of delegates to the Woman's Auxiliary of the Medical Society of New Jersey shall take place, shall be held during the months of April or May.

##### Article 6.—Dues.

Each member shall pay to the Treasurer of the county auxiliary annual dues of \$1.00, of which 50c is to be transmitted to the Treasurer of the State Auxiliary; it being understood that one-half of this last mentioned sum is for the purpose of paying the per capita assessment due to the Woman's Auxiliary of the American Medical Association.

##### Article 7.—Rules of Order.

All meetings of the Auxiliary shall be conducted in accordance with Robert's Rules of Order, save where such rules may be at variance with this Constitution.

##### Article 8.—Amendments.

This Constitution may be amended at any regularly called meeting by a two-thirds vote of the members present, provided the proposed amendment has been submitted in writing at a previous meeting and a copy thereof has been sent to each member of the Auxiliary.

#### PROPOSED CONSTITUTION AND BY-LAWS of the

*Woman's Auxiliary to the Medical Society of  
New Jersey.*

##### CONSTITUTION.

##### Article 1.—Name.

The name of this organization shall be the Woman's Auxiliary to the Medical Society of New Jersey.

##### Article 2.—Object.

The object and purpose of this Auxiliary shall be, as its name implies, to aid in promoting the aims and objects of the Medical Society of New Jersey and to serve as an ally to that organization in developing its program of health education and public welfare; it shall not take any action contrary to or independent of the advice of the Medical Society of New Jersey.

##### Article 3.—Membership.

The membership of the Woman's Auxiliary to the Medical Society of New Jersey shall be composed of the membership of the similar auxiliaries to the county medical societies which constitute the Medical Society of New Jersey.

##### Article 4.—Officers.

The officers of the Auxiliary shall be a President, three Vice-Presidents, a Secretary and a Treasurer, and these officers shall constitute the Executive Committee.

##### Articles 5.—Delegates.

(a) The business of the Auxiliary shall be conducted by a House of Delegates whose members



shall be chosen annually by the county branches of the State Auxiliary; and by the officers and the Executive Committee during the interim between meetings of the state organization.

(b) Each County Auxiliary shall be entitled to be represented at the meetings of the State Society Auxiliary by its President, or her alternate, and 2 Delegates or their alternates.

#### Article 6.—Meetings.

The meetings of the Auxiliary and of its Delegates shall be held at the same time and place as the meetings of the Medical Society of New Jersey. All members of all county auxiliaries shall enjoy the full privileges of the general meetings of the State Auxiliary, but only accredited delegates from the county organizations may take part in the business meetings.

#### Article 7.—Elections.

(a) All the officers provided for in Article 4 shall be elected, by ballot, at the Annual Meeting of the Delegates.

(b) The regular term of office shall begin at the close of the Annual Meeting at which such officers are elected and shall continue until their successors shall have been duly elected.

#### Article 8.—Dues.

Each county auxiliary shall pay annual dues to the State Auxiliary at the rate of 50c per capita; this to include the dues of 25c per capita payable from the State Society to the Woman's Auxiliary of the American Medical Association.

#### Article 9.—Amendments.

This Constitution may be amended at any regular meeting of the Auxiliary provided written copy of the proposed amendment has been sent to each county auxiliary not less than 60 days prior to said meeting.

#### Article 10.—Rules of Order.

The conduct of all meetings of the Auxiliary and of its Delegates shall be in accord with Robert's Rules of Order, save where such rules may be at variance with this Constitution.

### Report of Progress.

During the month of February 3 county society auxiliaries have been formed and efforts are being made to arrange organization meetings in all the other counties in the immediate future so that the entire 21 may be covered before the June meeting. The active aid of county medical society officers—particularly the presidents—is, however, requisite to such a degree of success and we ask those of you holding official positions to give this matter serious consideration.

The Woman's Auxiliary to the Atlantic County Medical Society was organized February 2, and elected the following officers: President, Mrs. Charles B. Kaighn; First Vice-President, Mrs. William Martin; Second Vice-President, Mrs. Joseph Poland; Recording Secretary, Mrs. E. H. Harvey; Corresponding Secretary, Mrs. Edward Guion; and Treasurer, Mrs. Samuel Winn.

In Camden County, Mrs. A. Haines Lippincott, a member of the State Society's organization committee, formed an auxiliary early in February.

The following officers were elected: President, Mrs. Edward C. Peclin; 1st Vice-President, Mrs. Joseph E. Roberk; 2nd Vice-President, Mrs. Orris Saunders; 3rd Vice-President, Mrs. Alfred Cramer; Recording Secretary, Mrs. Harry Bushey; Corresponding Secretary, Mrs. J. Grafton Seiber; and Treasurer, Mrs. R. E. Schall.

Salem County organized on February 9, with election of the following officers: President, Mrs. Fleming; First Vice-President, Mrs. Summerill; Second Vice-President, Mrs. James; Secretary, Mrs. Davis; Treasurer, Mrs. Perry.

A noteworthy fact in connection with the initial meetings of the Camden and Salem County auxiliaries is that the coincident meetings of these county medical societies were the largest—in point of attendance—they have ever held. If that condition—increase of attendance at the regular meetings—continues, then the formation of auxiliaries will be justified by that single fact.

We have referred above to possible variations in the matter of county auxiliary dues. In Salem it was decided to charge an initiation fee of \$1.00 and annual dues of \$1.00; the object being to start off with a small sum of money in the treasury available for use. In Camden, the annual dues were set at \$5.00 and this is to include subscription to Hygeia. As already explained, each county auxiliary may decide for itself what it wants to do in this respect. We would only caution against setting the fee at any sum large enough to be burdensome to any member. The primary object is to get some one into the organization from the family of every member of the county medical society, and it must not be forgotten that in probably 90% of cases whatever dues are exacted will be indirectly another tax upon the physician relative. With reference to including a subscription to Hygeia in the dues, or to requesting all members to subscribe to that excellent magazine, we would suggest that while it is desirable to have every member familiar with the contents of Hygeia it is more important that subscriptions be placed among the laity. Hygeia is primarily and fundamentally a publication for the layman and should be supported chiefly by the nonprofessional portion of the public; subscription to it should not become another imposition upon the physician for the benefit of the public.

We shall hope to report next month an additional number of county society auxiliaries organized.

### ANNUAL CONGRESS ON MEDICAL EDUCATION.

(Reported by Dr. Charles B. Kelley, Secretary N. J. State Board of Medical Examiners.)

Pursuant to your request I am sending herewith a brief abstract of the program of the Annual Congress on Medical Education, Medical Licensure and Hospitals. This program was conducted under the joint auspices of the Council on Medical Education and Hospitals of the A. M. A. and the Federation of State Medical Boards. It was held on February 14, 15 and 16, at the Palmer House in Chicago.

Seven of the 9 medical members of the New Jersey Board attended, and, in passing, might I say that it seems to me that it betokens a great interest in their work when 7 men will give up 5 days of their practice and travel to Chicago and pay their own expenses. This latter was necessary because the New Jersey Board has more or less difficulty in making both ends meet financially. I do not mention this with any idea of obtaining credit but simply in order to anticipate thought on the part of the profession throughout the state that the members were "joy riding".

The opening paper was on the "Need of Teaching Medical Ethics", by Dr. Arthur Dean Bevan of Chicago. He deplored the fact that Medical Ethics

were fast slipping away from the medical profession and laid special stress upon the ethical side of prohibition. He claimed that of the hundred prescriptions received from physicians for liquor every three months 99 of them were bootleg prescriptions. He also claimed that the 6 quarts of whiskey received by most physicians each year were diverted to social purposes rather than therapeutic ones. He further computed that the 5 gallons of alcohol received each year could be made up into a definite amount of synthetic gin. While he took up ethics from other standpoints, ethics as applied to prohibition seemed to be the main strain of his paper. He proposed that the Council on Medical Education would recommend and urge the teaching of ethics in the colleges by lectures, precepts and example.

Dr. Jabez Jackson, President-elect of the A. M. A., in discussing Dr. Bevan's paper, stated that the Board of Trustees of the A. M. A. had on the preceding day passed a resolution in this regard. He stated that the principle of ethics of the A. M. A. is nothing more than the Biblical idea of making a Christian out of a man. There is no way by which an M.D. can prove from his appearance what he is. His acceptance by the public and his fellow practitioners must be on faith, and it is the duty of the profession so to live as to justify this faith. The old time physician laid more stress on the ethical side. Science has been more stressed of late. Medical education of today develops the scientific side to the exclusion of the ethical side, and consequently character is weakened. A Chair of Ethics should be in every medical school to develop the character of the man. By all means teach "ethics" and drive it in.

Dr. McCormack of Kentucky moved the endorsement by the Congress of the ideas advanced by Drs. Bevan and Jackson.

The second paper of the session was on "The University and Medical Education", by Dr. Franklin C. McLean, Professor of Medicine of the University of Chicago. He stated that Medical Education has become a function of a university, and raised the question as to whether medicine is a science or an art. He developed his subject from this standpoint. In 1869 the German leaders insisted that only in science could medicine find its advance, and he stated that the development of medicine of the last half century has been a scientific one.

It is probably now time to develop the art of medicine, and under this heading could be found ethics. The university now has two functions. First, the university as such, and, secondly, furnishing medical practitioners. The scientific side of a physician is soon killed by medical routine. The fixed curriculum is contrary to the idea of complete education. The quiz compend is disappearing. The idea of medical education of today is to stimulate the student's interest in his work, to give him problems and to encourage him to work out these problems, and to even go as far as to allow the student to select a course and to bring to the minimum the required courses. The primary concern of the university is with the intellectual process of the student; to teach methods but to let the student work out the clinical problems for himself. A hasty diagnosis and prescription may impress the public, but superficial thinking spoils good work. The art of medicine must be developed. It should produce better mentally equipped doctors.

The third paper of the morning was on "The Trend of Medical Education", by Dr. Charles F. Martin, Dean of McGill University Faculty of

Medicine, Montreal, Quebec. In many respects Canadian medical education is markedly influenced by the A. M. A. and various State Boards. The United States offers the best and largest opportunities for medical education. It is now 50 years since Billroth gave out the principles of what medical education should be. In the United States and Canada there are to be found magnificent plants under groups of brilliant men. What are some of the difficulties? First, the proper selection of candidates. The personality of the individual must be taken into consideration. The average high school graduate rates little more than time spent without attention to the individual capacity. High School must be made better and must improve its course so as to consider the individual. The bright student must not be retarded by the dull. Preprofessional colleges provide little more than should have been provided by the high school. They should do more to broaden the view of the man.

What should constitute premedical subjects? Ideas vary. Some state that 2 years should be devoted to chemistry, physiology, and biology. Others claim that the cultural subjects should not be sacrificed. How few of our candidates have any working knowledge of French or German, although credits have been earned in these subjects. It is important to consider the personality in attempting to develop the ideal man. Scholarship alone should not eliminate it. The factor of personality should be given great consideration. The medical curriculum should be a fixed program in the major subjects but the other subjects should be elective. Free time should be given in which the student may study for himself. A better student will advance. After all it is not so much what he is taught as what he develops for himself. Some schools have brilliant men at the head of one department and less brilliant men at the head of other departments. It might even be a practical idea for a student to have his anatomy in one school and physiology in another if by this process it would be possible for the student to sit at the feet of a master in each instance. "Select inspiration here and knowledge there."

Dr. Martin developed the question of the State Regulation of Medical Education. He emphasized the lack of uniformity of our laws. He stated that the principle of state control of medical licensure is correct, but the state, the profession and the school are three factors that must be reconciled. The attitude of the state should be a broad one. If a medical school is recognized by a state, the school should be allowed to determine the premedical education. The state should be satisfied to examine the finished product.

The fourth paper of the morning was on "Altering the Medical Curriculum", by Dr. Ray Lyman Wilbur, President of Stanford University, California. Dr. Wilbur developed the subject along the line of abolishing a definite course. He agreed with Dr. Martin that the fixed curriculum should be of the minimum, that the student should be taught certain principles and then be allowed to apply these principles, work them out for himself, and that it might not even be necessary for the student to come in contact with his teacher except at irregular intervals.

Dr. Wilbur is also a sincere advocate of the shortening of the time spent in obtaining a medical education. He advocates the use of 11 or 12 months every year and in this way the 32 to 36 months of medical education could be obtained in 3 years. The present laws requiring medical education to be obtained in 4 separate years are antiquated and should be changed. I heard Dr. Wil-



but read a similar paper to this last year, and it seems to be his idea of pounding at the thought and eventually it will be adopted, and at least one year's time will be saved in medical education without sacrificing the curriculum.

Dr. Willard C. Rappleye, Director of Study, New Haven, Conn., presented a "Preliminary Report of the Commission on Medical Education", and discussed the subject from the standpoint of what the objective of medical education should be, how a better distribution of graduates can be brought about. In as much as a number of his ideas were covered in a later paper on the Basic Science Law, I will refer to them at that point.

The first paper of the second day of the meeting was on "A Hospital Department of Physical Therapy", by Dr. Frank B. Granger, Physician-in-Chief for Physical Therapy, Boston City Hospital. Dr. Granger presented a very excellent paper upon the adjustment of the hospital to this rapidly developing form of therapeutics. He laid special stress upon the necessity of instruction in physical therapy to undergraduates in the medical schools.

Dr. George E. Follansbee, Chief-of-Staff, St. Alexis Hospital, Cleveland, read a very excellent paper on the "Duty of the Hospital Staff to the Intern". I was so engrossed in Dr. Follansbee's paper that I failed to make any special notes, but am looking forward to its publication. It held out very high ideals of the duty of the staff to the interns. He stressed the importance of a hospital being considered the fifth year in a young man's education, and further emphasized that if the attending man would really act as a teacher in a friendly way he would never be without an intern when he made rounds.

Dr. N. P. Colwell, Secretary of the Council on Medical Education and Hospitals of Chicago, presented a paper on the "Hospital's Function in Medical Education". He showed a great improvement in the relationship between hospitals and medical colleges in the last 25 years; showed what the hospital is now doing for the intern and what the intern is doing for the hospital; 25 years ago very few hospitals would allow young doctors or medical students to enter their walls. At the present time the hospitals want interns and the demand exceeds the supply.

Tuesday afternoon the Board inspected the Chicago Medical School, in Chicago, which has asked for recognition by the New Jersey Board.

On Tuesday evening the Federation of State Medical Boards held its annual dinner. This is a great opportunity for members of the various State Boards to come in contact with men from all over the country. I wonder if it will not be news to many that such a body as the Federation of State Boards exists. Personally, I must say, that I never knew of such a body until I was in the New Jersey Board nearly a year.

The third day of the Congress was given over to the meeting of the Federation of State Medical Boards.

The first paper of the session was on "Licensure Requirements in Relation to the Teaching of Preventive Medicine", by Dr. Walter S. Leathers, Professor of Preventive Medicine, Vanderbilt University School of Medicine, Nashville, Tenn. Dr. Leathers showed that many of the Boards were not requiring examinations in Preventive Medicine, and that this should be given more serious consideration by the Boards. New Jersey gives 5 questions on hygiene at each examination, and these questions can be made to cover the subject of preventive medicine.

The second paper was by Dr. N. P. Colwell, Secretary of the Council on Medical Education, and was on the "Relation of the Quarter System to

Medical Licensure". Dr. Colwell developed the idea that had been covered by Dr. Wilbur's paper on Monday morning except that he showed the conflict between the present medical laws requiring medical education to be carried out in 4 calendar years.

The third paper of the morning was on the "Basic Science Law", by Dr. Edward Evans, Chief-of-Staff, St. Francis Hospital, La Crosse, Wis. The Basic Science Law of Wisconsin was necessitated by the great influx of chiropractors. The Basic Science Law now provides for a board of non-medical men who give an examination in the so-called basic sciences. In Wisconsin these consist of anatomy, physiology, pathology and diagnosis. In order to enter a school to obtain the education necessary to pass this examination in basic science a chiropractor or osteopathic student must have a preliminary high school education. A prospective M.D., in order to take the same examination, must have 2 years of preprofessional work in addition to his high school. After a candidate has obtained a certificate covering his basic sciences he may then pursue his study, and at a later date take an examination before a medical, osteopathic or chiropractic board, according to the school which he desires to practice. Dr. Evans stated that in Wisconsin they are very much pleased with the law.

In the discussion of Dr. Evan's paper, however, it was brought out that in order to make the law operative it was necessary to license nearly 600 chiropractors who had been operating in the state previously. It was further brought out that so far only one chiropractor had passed the basic science test, but it was stressed by Dr. Harold Rypins, Secretary of the New York Board, that as soon as the character of the examination became known it would not be long before many other chiropractors would be passing it, as he stated, "Coaching schools were not invented yesterday".

The general discussion of the basic science law was very critical, and Dr. Woodward, who has been writing rather enthusiastically on the basic science law, took the floor. He defended it as being a great advance over having separate boards which could license men according to various standards, but he stated that the law is inferior to the law in states requiring a composite board. My own impression was that the present law in New Jersey is greatly in advance of the basic science law. Wisconsin and Connecticut have made advances over their condition of a couple of years ago, but their regulation of the practice of healing arts is still inferior to that in New Jersey. The idea of all candidates taking the same examination in basic science is carried out in New Jersey under a mixed board. All candidates not only take the same examination in anatomy, physiology, pathology and diagnosis as required by the Wisconsin Law, but they also take the same examination in chemistry, histology, bacteriology and hygiene, and, in fact, in every subject except therapeutics. The general consensus of opinion as expressed in the discussion was to maintain an attitude of watchful waiting in regard to the basic science law and to see how it works out in Wisconsin and Connecticut. I was greatly impressed by Dr. Woodward's remarks, that it was not applicable to the states where a composite board exists.

Dr. Willard C. Rappleye gave a report on the "First Year's Study by the New Commission on Medical Education", and largely supported the ideas of Dr. Evans on the basic science law. One must remember, however, that Connecticut was in a very deplorable condition in having all sorts of boards for all sort of practitioners, and the basic science law offered a way to improve conditions,

but is still inferior to the idea of one board for all practitioners.

In the afternoon session, Dr. Harold Rypins, Secretary of the Board of Medical Examiners of the State of New York, read a paper on the "Practical Administration of the Enforcement of the Law Against Illegal Practitioners". He stated that no law is any stronger than the power to enforce it. The important feature, the first essential in enforcing the law is to find out who is violating it. Annual registration in New York has given the board a list of those who are licensed to practice. They have started a drive against the unlicensed practitioners, and their experience has taught them that the unlicensed practitioners are rapidly disappearing. He was very enthusiastic about the necessity of annual registration as the first essential toward the proper enforcement of the medical practice act.

Dr. T. J. Crowe, Secretary of the Texas Board of Medical Examiners, read a paper on "Enforcement of a Medical Practice Act", and showed how the act has been improved and is being administered in Texas. I gained the impression that what New York and Texas think is a great advance has been in effect in New Jersey for years. For instance, New York has finally gotten the matter of prosecution into the hands of the Attorney General of the state. We have had that in New Jersey since 1920. Prosecutions in Texas still remain in the hands of the county prosecutors. Texas still has a jury to convince, while in New Jersey the case is tried before a judge. The penalty for violation of the medical practice act in Texas is only \$50. In New Jersey it is \$200 with a \$500 penalty for the second offense. However, Dr. Crowe of Texas is a very dynamic individual, and I feel sure he is doing a great deal of work to stamp out illegal practice. Another disadvantage that he has, of course, is the tremendous size of the state.

Dr. Charles B. Pinkham, Secretary of the California Board of Medical Examiners, presented a paper on "Safeguarding of State Board Records". His paper was very timely and very interesting, but I am glad to say did not apply to New Jersey, as the records of the New Jersey Board are unusually well-kept. During Dr. McAllister's term as Secretary there was developed a system of safeguarding the records which I think will compare favorably with any state in the Union.

The last paper of the session was read by Dr. G. M. Williamson, Secretary of the North Dakota Board, on "Reciprocity versus Interstate Endorsement". The general tendency of the Boards at the present time is to get away from reciprocity; that is definite reciprocal agreements. In place of reciprocity no Board will accept the license of any other state, but will accept the examination of any other state provided the candidate has the other qualifications required by the state in which he seeks license. As applied to New Jersey, the idea works out in this way: New Jersey has reciprocal agreements with a few states, including New York, but will accept the examination of any state if the individual candidate has New Jersey requirements. New Jersey does this irrespective of whether the other state takes New Jersey credentials or not. Florida and Massachusetts do not accept the license of any state, but New Jersey will accept the examination of either state if the individual candidate has the other New Jersey requirements.

The entire 3 days were highly educational. Many facts were developed, but the outstanding features seemed to me to be: First, the development of the art side of medicine as against the purely scientific side; second, the necessity of going slow be-

fore advocating or adopting the basic science law, but agreeing to the necessity of the further study of this subject; third, the Federation went on record as favoring the placing of the standardization of medical schools in the hands of the Federation of State Boards. While we all appreciated the tremendous work of the Council on Medical Education in inspecting and standardizing medical schools since 1907, the time has come when that work could be carried on better by the Federation of State Boards. The State Boards are legal bodies appointed by the various states, and it is their duty to know the qualifications of a medical school. Theoretically every States Board should inspect all of the medical schools. This is impractical however, and it becomes necessary for each Board to accept the classification of some standardizing body. By the Federated Boards doing this work (they being state bodies) it was felt that the cry of "medical trust" in regard to the A. M. A. could be minimized.

We left Chicago on Wednesday afternoon and reached home early Thursday evening, quite tired, but well pleased.

## Lay Mirror Reflections

### PHYSICAL FITNESS OF AUTOMOBILE DRIVERS.

In the Welfare Committee's Report, page 130 of the February Journal, we discussed the action of Commissioner Dill in starting a plan for examination of the vision of applicants for a driver's license, and recommended extension of that plan to embrace a more complete physical test of would-be drivers, with a view to lessening the number of automobile accidents and making our state roads safer for all who must use them. A special committee has since conferred with Mr. Dill and consideration is being given to plans which we hope may materially improve existing conditions.

In line with our argument in relation to this matter and our previous presentation of plans for uniform action in such matters through interstate conferences, comes an interesting editorial from New Jersey's leading newspaper as follows:

#### TRISTATE UNIFORM TRAFFIC LAW A DESIRABLE OBJECTIVE.

(Newark Evening News, Jan. 27, 1927.)

Motorists are not the only ones who will be interested in the proposal to bring about uniform traffic regulations in New Jersey, New York and Pennsylvania. The public generally is concerned in a revision of the laws of the three states on the basis of lessening congestion delays and in preventing accidents on the highways.

New Jersey took the lead in formulating a comprehensive traffic act, and its example has been followed elsewhere. New York and Pennsylvania are preparing to amend traffic regulation by statute and a special commission is studying the situation here. Hearings already held have brought out many conflicting opinions, and



other conferences are scheduled before a report is presented to the Legislature.

The suggestion for a tristate agreement is opportune. The New Jersey commission has consulted the Pennsylvania authorities and has found a favorable reaction on the uniformity plan, and New York should also be willing to discuss it. With the bridge over the Delaware handling a tremendous flow of interstate traffic; with the vehicular tunnels under the Hudson approaching completion, and bridges connecting New Jersey and New York in the offing, what might be called a new "traffic area" has been created.

There should be no conflicting laws and regulations on the subject to hamper those using the interstate highway connections. The crossing of a state line should create no new problem for the drivers of vehicles. A uniform traffic law, the best that can be devised after a careful study by the experts of the three states, should solve the problems that now confuse motorists owing to conflicts among the laws of the states.

Regulations that would be best for one state would also be best for the others, for their traffic difficulties, in the main, are identical.

## AS THE PUBLIC VIEWS A SURGEON'S DILEMMA.

Not infrequently a surgeon is confronted by the necessity for deciding quickly whether he is justified in exceeding the authority granted him as regards the right to operate or the extent of an operation previously explained and authorized. If he stops short of what he finds the condition requires, he will safeguard himself against suit but the patient may die because of an incomplete procedure; if he proceeds in accordance with his best judgment at the moment, he may save the patient's life only to face a suit for "damages" because he exceeded the authorization given. A recent occurrence in England will illustrate the situation:

### A MEDICOLEGAL QUESTION.

(New York Times, Feb. 14, 1927.)

A recent lawsuit at Liverpool involved a question which has often arisen in this country, in one way or another. It seems that a woman went into a hospital for what was supposed to be a slight operation. But when she was under the ether the surgeon discovered a malady which he believed would shortly be fatal unless an instant major operation was done. Of course, it had to be done, under the circumstances, without the patient's consent. Afterward she brought suit for damages on the ground that, as her counsel argued, to perform an operation without a patient's consent, is, in law, "an assault."

The presiding Justice told the jury that this was true; that no surgeon, however good his intentions might be, had a right to perform an operation without first getting the person's consent. In case of children, permission to operate must be had from their parents. But the jury brought in a verdict for the doctor, on the ground that, as this particular case stood, it was not possible to obtain the patient's consent, and that it was his duty to go ahead and save the woman's life,

if he honestly believed that was the only way to do it.

Such cases must be rare, but surgeons sometimes have to take the responsibility of acting not strictly in accord with the legal theory. Suppose a man is picked up unconscious in the street with a fractured skull. His identity cannot be established; there is no way of communicating with his relatives or friends. Must a surgeon wait until the man recovers a gleam of consciousness—or more probably dies—before attempting the indicated operation? Certainly no sensible jury would hold him in damages if he did not.

## Special Society Report

### NEW JERSEY SANITARY ASSOCIATION.

Continued from February Journal.

### VENTILATION IN PUBLIC SCHOOL BUILDINGS.

Herbert N. Morse, Business Manager, New Jersey State School System.

My definition of fresh air is "air having the original qualities unimpaired". How are we to supply this to large groups of children compelled by law to attend our public schools?

In 1903, New Jersey tried to guarantee the accomplishment by passing a law which provided that each class room shall have at least 18 sq. ft. floor space and 200 cu. ft. air space for each pupil; that all school buildings shall have a system of ventilation, by means of which each class room shall be supplied with fresh air at the rate of not less than 30 cu. ft. per minute per pupil. Ventilating stoves are allowed in all one story school buildings, and in all school buildings in which the number of rooms does not exceed two.

These ventilating requirements were statute law until July, 1911, then rule of the State Board of Education, which also "strongly recommends installation of a mechanical system of ventilation \*\*\* in all buildings of 4 or more rooms \*\*\* as experience shows that gravity ventilation is unreliable". One requirement missing in these regulations is that every ventilating system should be in operation every day the schools are in session, a penalty being imposed on the district for violation.

The best proof of the inadequacy of gravity ventilating systems is to walk from the open air into a gravity ventilated school and use your nostrils. There are several kinds of mechanical systems which meet the demand for a proper working air for the pupils in the usually overcrowded school room. Heated, fresh, clean air should be supplied at not less than 30 cu. ft. per minute per pupil. The temperature of the school room should be not less than 68°; not over 70°. As Kimball says, however: "The success achieved with a mechanical ventilating system is largely a measure of the intelligence and skill of the operator".

The real incentive back of the ventilation discussion seems to be the cost of installation and maintenance rather than the interest of the pupil. In 24 buildings of various sizes and recent construction in this state, the heating and ventilating median cost was 11% of the total building cost. The heating and ventilating layout is usually combined in the building contract, as not only does the air in the room require heating, but also the new air being supplied.

The ventilating systems in our older school buildings (constructed prior to 1912) are obsolete. When your automobile is worn out, you procure a new one. You would not wish your state to take a backward attitude in the important matter of the ventilation of its public schools. You also know that you should have custodians of school buildings who are skilled in operating ventilating, as well as heating, systems.

It is my judgment that every school building should be completely equipped with a mechanical ventilating system which furnishes clean, heated air to every room used by the pupils and teachers, including coat rooms and inside toilets, at the rate of at least 30 cu. ft. per pupil per minute, with the temperature of the room at 70° in freezing weather.

### CAMP SANITATION.

Charles R. Cox, Division of Sanitation, New York State Department of Health.

The public health authorities of many states have realized that the increasing use of summer camps is presenting a serious public health problem. It would appear to be pertinent, therefore, that we discuss the administrative control by public health authorities of sanitary conditions in summer camps.

A recent canvass of the sanitary engineering bureaus of the 41 states having such bureaus, conducted by a committee of the Conference of State Sanitary Engineers, indicates that over 3000 organized summer camps were inspected by state health authorities during 1925 in the 40 states furnishing information and that probably one and one-half million people utilized camps in these states.

Of the 40 states answering this questionnaire, 33 have enacted special rules and regulations to govern the sanitary conditions obtaining in camps. These regulations have been formulated within the last few years, indicating how recently the problems of camp sanitation have been deemed of country-wide importance. State regulation covering camps are specific in detail in some instances and require actual inspection of summer camps by representatives of the State Health Department in order that the required certificates or permits for occupancy of the camp can be issued. In other instances, the Codes are so worded as to place the responsibility of the supervision of the sanitation in camps with the local health authorities. The sanitary engineering bureaus of the State Health Departments in these cases offer assistance to the local health authorities when problems of a sanitary engineering nature are involved. In other instances, however, the State Codes merely emphasize the desirable features pertaining to sanitary camps and permit the health workers or camp authority considerable leeway in interpreting the requirements of the Codes. It appears that the general local public health laws in the 7 states not having state camp Codes, provide sufficient powers to local authorities to enable them effectually to control sanitary conditions in camps.

There seems to be a growing realization that the detail problems of the supervision of summer camps by public health authorities is a local matter. It is obvious, however, that many of the problems of camp sanitation are of a sanitary engineering nature. It is, therefore, essential that the Division of Sanitary Engineering of the State Department of Health cooperate with the local

health authorities in their supervision of summer camps in order that the greatest benefits may result from the control of such camps. Such coöperation is assured in New York State by special provisions of Chapter V of the Sanitary Code dealing with camps. One of the regulations of this portion of the Code requires camp authorities to obtain a permit for the occupancy of their camps from the health officers of the towns or villages in which the camps are located. The numerous local health officers are given detailed aid in matters of camp sanitation by the Division of Sanitation of the New York State Department of Health. Several sanitary engineers from this Division have been inspecting the larger organized camps, accompanied by the local health officers in most cases. More than 500 camps have been inspected thus far, and thereby the way has been paved for more helpful supervision of the smaller camps by the local authorities; also many camp directors have thus been informed of the principles of camp sanitation. A 60 page bulletin upon camp sanitation has been prepared and is being distributed to the various camp authorities and local health officers to provide them with a reference text upon the subject.

In the selection of a camp site there are numerous local problems, such as slope, porosity of soil, elevation of ground water table, exposure, etc. The necessity for a porous subsoil should be borne in mind at all times, however, because the average camp must dispose of its liquid wastes in seepage devices of one type or another. The most desirable sites are on a stream or lake with an eastern exposure, so that a wooded tract to the west of the camp may offer shade against the hot afternoon sun.

The fact that water of satisfactory quality may be limited in quantity has led to the rather frequent use of dual water supplies—a well or spring for potable water and a lake or stream for general purposes. As many people have the impression that clear, tasteless water is pure, the use of dual water supplies often leads to the consumption of water not intended for potable purposes. Where this arrangement is unavoidable, no cross connections between the 2 systems should exist. Upland lakes and streams can be effectively treated by chlorination, and chlorination plants are available for the larger camps. Small quantities of water utilized on hikes or touring trips can be disinfected by using one of the numerous commercial chlorin compounds, although chief reliance should be placed in boiling.

The disposal of liquid wastes is the most difficult single item in the maintenance of a sanitary camp. When equipment with flush toilets is not feasible, one of the several types of sanitary privies or chemical toilets may be utilized. Such structures should be fly-tight and properly ventilated, and the seat covers and doors should be self-closing. These privies naturally cannot be used when they have to be located relatively close to wells and springs so that under most camp conditions it is necessary to provide water-tight vault privies or chemical closets. The satisfactory operations of these depends upon 3 factors: (1) a sufficient quantity of disinfectant and deodorant to sterilize contents; (2) cleanliness and sterility of the inner surface of the seat structures above the influence of the disinfectant; (3) use of agitators in the vaults or tanks to break up floating masses of solids. A vault capacity of 1-2 cu. ft. per person served has proved



sufficient to enable a chemical toilet to be utilized throughout the camping season. Satisfactory results have been secured when 1-2 lb. lye is used per cubic foot of vault capacity. It is very important that public health workers bear in mind that a fallacy exists in the minds of many people to the effect that the sedimentation of sewage in so-called septic tank leads to the "purification" of the sewage so that streams or ponds used for bathing purposes are sometimes allowed to receive the effluent of such tanks. Every effort should be made to counteract this erroneous idea.

The garbage accumulating in the average small camp can be readily disposed of by burial. Where incinerators are used in the larger camps it should be remembered that provisions for supplying a forced draft with due care for heating the air are essential. The average low temperature incinerator used in camps should be located where nuisances from the inevitable odors will not result.

Where pasteurized milk is not obtainable the milk used should be from tuberculin tested herds; as such milk may be infected by a typhoid carrier, it is obviously desirable to know more about the source of milk than the mere condition of the herd. Milk should be stored in sterilized utensils and kept at a low temperature.

It is obvious, from the foregoing, that the maintenance of sanitary camps depends to a great extent upon the degree of supervision exercised by the camp authorities, because elaborately equipped camps poorly supervised soon become less satisfactory than camps in which careful supervision is given to equipment of an inferior nature. The intelligence of the campers is a very important aspect of the problem, in that camp equipment it utilized in the manner dictated by the esthetic tastes and the knowledge of sanitation of the campers.

### PROBLEMS IN PRACTICAL CAMP SANITATION.

E. R. Carrick, Council Executive, Mercer County Area, Boy Scouts of America, Trenton, N. J.

I hope to make clear in this paper that the camp director is vitally interested in the health and safety of his campers and in the sanitation of his camps. Those of us who are employed by social service organizations have not only our camp directorship at stake, but our year-round earning capacity in the profession for which we are trained. Serious illness or bad accidents in camps directly affect registration, sometimes in the year in which they happen and always for about 3 years following.

One of the foremost problems in meeting the various necessities of camping is the question of money. In the 7 camps with whose inception I have been identified and for whose completion I have been responsible, there has always been a necessity to stretch about one-third of the money appropriated to cover all requisites. Necessarily, under such a contingency, some corners must be cut, some temporary stop-gaps inserted and some things left out, no matter how desirable they may be.

The second problem of the camp director is the personnel of the camp. The average stay of a boy is 1.3 weeks, and every 3½ years practically the entire personnel of campers is new. That means approximately 30% of the boys in older camps are new each year; in most camps

not operating on a charity basis but dealing with the poorer and sometimes underprivileged boys, the proportion of new campers will run between 50 and 60% each year.

Closely correlated to this situation is that of the staff members themselves. Each frequently has an idea that he is employed only for specific functions; the camp naturalist has often no interest in sanitation but only in birds and flowers. We consider the work of our resident camp medical man to be primarily that of a sanitation expert, if we define sanitation as found in the manual on organized camping which says: "Sanitation renders the environment of man more healthful by preventing the transmission of infectious diseases and by the elimination of nuisances". Although our camp folder, sent to the parents of all prospects, requests that all scouts undergo a physical examination before leaving for camp, we reexamine all boys on their arrival. By such careful supervision, followed by frequent inspection during camp residence, sickness is reduced to a minimum.

At the camp conference of Region 2 (New York and New Jersey) of the Boy Scouts of America, held at Briarcliff Lodge, last spring, some interesting recommendations were made to camp directors. Among these it was suggested that every camp should have a weekly visitor, preferably not a member of the staff, who would make a thorough sanitary inspection. This inspector should be furnished with a blank noting all subjects covered and his report should be taken up with the director immediately so that all possible improvements could be promptly effected.

### SUMMER CAMPS.

C. K. Blanchard, Assistant Epidemiologist, New Jersey State Department of Health.

Summer camps may be considered under 3 groups: (1) those for single families or small numbers of persons; (2) those maintained by organizations for boys, girls, or adults; (3) those maintained for the use of automobile tourists. Labor and construction camps are not considered here. At present, the only control over camps of any kind, except such as may be exerted by local ordinances, is found in Chapter X of the State Sanitary Code. This requires, in general, that the local board of health be notified of the establishing and closing of any labor camp and of any other camp occupied by 5 or more persons for 3 or more days; that the local health officer shall inspect any camp of which he has knowledge, and leave a copy of the State Sanitary Code; and that all camps must be kept clean and left clean and free from refuse accumulations.

It is only on the most rare occasions that I have found this chapter enforced by local boards of health. Such boards in most rural communities are not organized to function in matters of this kind, and it is doubtful if this chapter will be enforced locally so as actually to control and regulate camps in the state until local sanitary districts are reorganized. Several questions, therefore, face the sanitarian when he considers the safeguarding of summer camps: (1) Is it desirable to attempt further regulation and control of the sanitation of camps? (2) Should all kinds of summer camps be so regulated or only certain classes? (3) What means of regulation should be adopted?

Since the present means is not effective at all, I feel that further effort at regulation and con-

trol is desirable. It is obviously impossible for the State Department of Health, with its present limited personnel, to inspect and control the thousands of family or group camps. Moreover, such control would not be desirable, for these camps are merely summer homes and should be subject to the same regulations as the homes of our townships. The other 2 classes, however, are of a different nature since they are really selling shelter, board and certain privileges to the public. Their regulation by a state department might be justified on these grounds, and any regulatory measures which may be applied to camps should be applied to all other places where food, drink and lodging are sold to the public.

The following plan of control is suggested as basis for discussion leading to some definite action: (1) That each camp or other establishment such as stand, boarding house, hotel or restaurant, which sells meals or lodging be required to register annually and to secure a license. (2) In order to obtain a license, the camp or other establishment must be provided with a safe and abundant supply of water, conveniently located; a safe means of disposing of human wastes; a means of disposing of kitchen wastes and garbage which will not create a nuisance; a refrigerator of sufficient size and proper drainage to keep foods cold and clean; and an effective means of protecting food from flies. In addition, the premises must be well drained, must be kept reasonably clean, inside and outside, and the food handlers must be personally clean.

It is recognized that such a program would require a great amount of work, both in the field, office and laboratory, and the cost of enforcement would be large. A careful study of the expense and difficulty that would be encountered, and of the experience of other states, should be made before action is undertaken. There is no provision in the law or in the State Sanitary Code for requiring the licensing of camps or other establishments here mentioned. An act of the legislature would, therefore, be necessary before such a program could be instituted. The State Sanitary Code could be amended to include regulations for the operation and maintenance of camps, but such regulations would not accomplish the desired purpose unless some additional machinery were provided to insure their enforcement.

### SUMMER CAMPS IN PENNSYLVANIA.

H. M. Freeburn, District Engineer Pennsylvania Department of Health.

In 1921 the Department of Health, through its Bureau of Engineering, inaugurated inspection of summer camps to investigate the suitability of the sites, character of water supplies, means adopted for disposal of excreta and garbage, exclusion of flies, bathing facilities, milk and vegetable supplies and other pertinent matters. The executive officials of these camps welcomed this work and cooperated to make any necessary corrections to protect the health of the campers. The magnitude of this undertaking may be indicated by the fact that in 1926 there were, in the north-eastern section of the state, 75 large camps, each having at least 50 campers. The Pennsylvania Department of Forestry has taken the attitude that the state forests belong to the people and should be used by the public. At present there are more than 1,130,000 acres of state forest lands in Pennsylvania, one-tenth of which

is on drainage area supplying water for several hundred thousand people. In June, 1922, an agreement was consummated between the Forestry Department and the Health Department which divided the watershed area into 3 zones. The first zone included all territory less than one mile above the intake dam, no camping privileges to be granted within this zone (existing leases not renewable). The second zone embraced all territory within the watershed situated between one and two miles above the intake dam; no camping privileges granted unless an approved water-tight privy vault of concrete or stone masonry was provided, and standard sanitary restrictions observed. In the remaining territory, or third zone, all camps were to be subject to standard restrictions. These restrictions, as definitely specified in the agreement [quoted in full] provided for the sanitary regulation of all items mentioned above as objects of the original investigation. In addition, it was recommended that the ground for a camp site should be comparatively level, the soil of an absorptive nature; tents should be at least 50 ft. from any stream; privy and garbage pits should be on level ground and at a distance of at least 100 ft. from any stream; if a water-tight privy pit of concrete or stone masonry is provided, the distance may be not less than 50 ft. If water supply is taken from a spring, the camp should be on lower ground than the spring, and other camps up the stream or slope should not be located within 300 ft. of the spring. Water should not be dipped from a spring but an enclosure should be constructed and provided with an overflow pipe or pump.

By 1924 a few tourist camps were established along the main highways of the state as well as many refreshment stands dispensing food and water, where toilets of all descriptions were available for use by the traveling public. This problem was attacked by mounting a fully equipped field bacteriologic laboratory on a truck and starting along the main highways with a bacteriologist and an engineer to examine all semipublic water supplies available to the public. Sanitary surveys were made and property owners advised where improvements could be made. The public was notified by signs where the water supply was safe and by warning placards where it was dangerous. In the year 1926 such examinations totaled 2190, the distance covered being 2700 miles.

By the end of the summer of 1925 there were so many camps of all descriptions through Pennsylvania that it was found advisable to have state wide regulations governing camps. The Advisory Board of the Department accordingly drew up the "Rules and Regulations of the Department of Health of the Commonwealth of Pennsylvania for the Prevention of Disease and for the Protection of the Lives and Health of the People of the Commonwealth by Providing for the Control of Sanitation in Camps Used by the Public, Made April 13, 1926, by the Advisory Health Board, Pursuant to Authority of Section 1811 of the Administrative Code, Approved June 7, 1923." [Quoted in full]

Another problem soon arose in the matter of control and supervision of the large number of tourists camps that were contemplated in the district around Philadelphia to take care of the tourists traveling to the Sesquicentennial. The Automobile Committee of the Exposition was interested in having safe tourist camps operated by responsible parties, and decided to give of-



ficial endorsement to a limited number of camps along the main trunk highways leading into Philadelphia. In conjunction with the General Manager, a comprehensive and specific list of requirements [quoted in full] was drawn up for official appointment of camp sites. Every camp site proposed for official endorsement was inspected by the General Manager of the Automobile Committee and the District Engineer of the Pennsylvania Department of Health; the owner or operator was informed whether the site selected would be satisfactory, and the requirements were thoroughly explained. These conferences and inspections, before any detail plans had been prepared and before any funds had been expended, were of the utmost importance, as the camp operators then knew what was expected in the way of equipment, facilities and operation. The official appointment was an incentive to provide a good camp in view of the advantages gained—wide advertisement of the location by the Committee, display of the official sign secured after signing a contract and the payment of a small fee, the services rendered by the Committee's employees at information booths along the main highways in directing tourists to the official camps, and the establishment of a standard charge for camping privileges.

All of the camp inspection work was under the direct supervision of the District Engineer, assisted by an experienced full-time Health Officer, who inspected all official camps at least once a week, except those in the city of Philadelphia, where the Bureau of Health performed this work. Unofficial camps were inspected once each week by the Department's local Health Officer and at intervals by a representative from the District Engineer's Office. There were 8 official Sesqui tourist camps and 58 unofficial tourist camps under the supervision of the Department. For the majority of these a camp site 20 by 30 ft. was found sufficient. One of the most important features for successful operation of these camps lay in a capable caretaker. Most of the tourists were orderly and in only a few instances was it necessary to eject anyone from camp. Standard registration cards were used by all the camps. Water was provided from the public supplies, except in one case where a drilled well was used. The requirement that water hydrants be placed not more than 150 ft. from any individual camp unit was found to be reasonable and desirable. The daily per capita use of water at a camp where there are no shower baths or flush toilets was 5 gallons. Fly-tight privies, separate for men and women, proved satisfactory where public sewage facilities were not available. Waste water was disposed of by means of subsurface tile lines or cesspools. In spite of all the regulations which were posted, and the prominent markings on the receptacles, campers would not separate garbage, rubbish and paper. In numerous cases they threw everything on the ground around their tents. Material of this nature was collected and removed at frequent intervals by municipal collection agencies. Not one case of disease was found in any of the camps, official or unofficial.

He took her hand in his and gazed proudly at the engagement ring he had placed on her fair finger only three days before.

"Did your friends admire it?" he inquired tenderly.

"They did more than that," she replied coldly. "Two of them recognized it."—Earth Mover.

## County Society Reports.

### ATLANTIC COUNTY.

Harold S. Davidson, M.D., Reporter.

The regular monthly meeting of the Atlantic County Medical Society was called to order by the President, Dr. Chas. B. Kaighn, at 8:30 p. m., on Friday, February 4, 1927, at the Chalfonte Hotel.

Among those present were the members of the Insurance Club of Atlantic City, who were guests of the Society for the evening.

Dr. W. Blair Stewart, reporting for the Committee on Public Health and Legislation, reported that toxin-antitoxin, for the prevention of diphtheria, has been given generally throughout all the public parochial and private schools in Atlantic City. He also stated that there has been a bill introduced into the legislature to have special examining boards for chiropractors.

The Board of Censors reported the application for admission of Dr. Norman H. Bassett, Atlantic City.

The President stated that Woman's Auxiliary to the County Society is in the process of formation.

Major Fred Hickman, President of the Insurance Club of Atlantic City, introduced Dr. Andrew McBride, Director of the Department of Labor of the State of New Jersey, who spoke on "The Compensation Act as Affecting the Physician". (Dr. McBride's address appears in full in this issue of the Journal.)

It was moved by Dr. W. B. Stewart, and seconded, that this Society ask the Department of Banking and Insurance to provide uniform blanks for insurance carriers, to be used in reporting compensation cases.

Dr. A. M. Ornsteen, Philadelphia, Pa., presented a paper entitled "Encephalitis", which is promised for later publication in the Journal.

Dr. Charles H. De T. Shivers, Atlantic City, N. J., presented a paper on "Cancer of the Penis", which follows in condensed form:

While cancer of the penis is not an exceptionally rare condition, it is uncommon enough to be of interest to the general practitioner and surgeon. When a patient presents himself to a physician with a lesion on the penis, and where the physician can rule out syphilis and granuloma inguinale as a cause, and where the ulcer does not respond to ordinary methods of treatment even in young men, cancer should be suspected, and a section of the tissue should be sent to the pathologist for examination. In this way, cases will be diagnosed early and such measures as x-ray, radium, fulguration and circumcision may effect a cure. But when the tunic of the gland is once penetrated, it is necessary to resort to surgery, either partial or total amputation, depending upon extent of the involvement.

The 5 cases that I am reporting this evening were operated on by me in the Genito-urinary Department of the Municipal Hospital. These cases, with the exception of one, were all seen late.

Before showing you the lantern slides, I would like to mention a few interesting facts.

(1) *Age*.—This ranged from 40 to 53 years, although one patient was 24 years of age.

(2) *Duration of the Lesion*.—In 3 cases the average duration was 7 1/3 months; in 1 case 4 months; and, in the last case we operated on, it was only 8 weeks.

(3) *Predisposing causes as given by the physician*.—Phimosis was the cause in 4 cases, although

one of the patients had been circumcised 2 months prior to appearance of the cancer in the scar of the circumcision. I feel that cancer existed prior to the circumcision and on removing the prepuce some of the cancer cells were left in the living tissue. In 1 case warts were the predisposing factor. This patient had a benign papilloma on the glans penis for 5 years before it started to break down. Four of our cases were in negroes, but this was simply a coincidence. Three had chronic syphilis. What part syphilis or other ulcerations appearing from time to time on the glans penis or mucous surface of the prepuce have to do as a predisposing factor in the production of cancer is still an open question.

*Causes ascribed by the patients themselves.*—One claimed an injury to the shaft of the penis 2 years before. Another said he had intercourse too soon and too often after circumcision, which produced a considerable amount of irritation.

(4) *Glandular involvement.*—Two cases showed metastasis to the inguinal lymphatics at the time of operation. One of these patients died 10 months after operation; the other is living and well. In 3 cases there was no evidence of metastasis to the adjacent lymph glands at the time of operation either macroscopically or microscopically. However, one of these patients developed swelling of a right superficial inguinal lymphatic gland 3 months after operation, which was malignant in character.

(5) *Symptoms subjective.*—Pain was the most prominent symptom complained of by all these patients; probably due to the fact that they were seen late and there was an associated cellulitis.

*Objective.*—All of the patients had noticed some change from normal at an early period. For example, inability to retract the prepuce, irritation around the margin of the prepuce and a discharge from the under surface. All of these patients gave a history of consulting a physician but the disease had not been recognized as cancer.

(6) *Pathology.*—The pathologist's report on sections of tissue taken from these cases was squamous cell carcinoma, but for clinical reasons we classify this in 2 types, the papillary and the indurated ulcer types. Both types occur in the same lesion, but they are classified according to the one which predominates. Most all of the long standing cases are of the latter type. In 4 of our cases we have the infiltrated type of carcinoma and in only 1 the papillary type.

(7) *Treatment.*—In 2 cases it was only necessary to do a partial amputation. The incision was always made 2.5 cm. back of the infiltration in the cavernous bodies. In the remaining 3 cases a total amputation of the penis was done. In 1 case the urethra was sutured to the anterior portion of the scrotum, in another to the posterior near the perineum, and in a third, to the perineum. All of our cases, with the exception of one, had intensive postoperative x-ray treatments.

(8) *Results.*—Of our patients, 60% are living and well, with no recurrences. The duration since the operation in the first has been 4 years and 6 months, in the second 2 years and in the third 1 year and 7 months. Recurrences in 40%. One patient is still living and the other died 10 months after operation from metastasis of the spine.

#### Atlantic City Hospital Staff.

Joseph H. Marcus, M. D., Secretary.

The monthly meeting of the General Staff of the Atlantic City Hospital was held in the Nurses' Auditorium, February 18, 1927. The meeting was called to order at 8.30 p. m. by Dr. William J. Carrington, president. The scientific program

which followed consisted of the Report of Laboratory Service for 1926, by Dr. Robert A. Kilduffe; the Report of Surgical Service, by Dr. David B. Allman; Case Reports from Service of Drs. D. Ward Scanlan and Harold S. Davidson: (a) Dr. C. Hyman, Carcinoma in the thoracic cavity; (b) Dr. W. George, Typhoid Fever Complicated by Pneumonia, Abscess of the Spinal Column, and Periostitis of the Acetabulum; closing with a discussion 5 minutes each of 6 case mortalities.

#### REPORT OF LABORATORY SERVICE.

Dr. Robert A. Kilduffe, director of the laboratories, presented the first complete report covering a period of 12 calendar months, January 1 to December 31, 1926. Dr. Kilduffe outlined the gradual expansion and reorganization of his department. He has always kept in mind the importance of the relationship of the laboratory to the clinical phase and has always been eager and extremely efficient in supplying adequate means for such skillful systematic and scientific study of the patient as might be required for arriving at a diagnosis, estimating prognosis, or assisting in the control of treatment. He further stated that a statistical report is, to some extent, a measure of the degree to which the laboratory has been utilized for these needs, and submitted the following data.

#### Statistical Laboratory Report for 1926.

I Blood Examinations:	
Hemoglobin estimations	2578
Red cell counts	2586
White cell counts	3049
Differential counts	3110
Coagulation time	131
Bleeding time	1
Platelet count	1
Sedimentation time	12
Volume index	1
Blood grouping	123
Red cell fragility test	1
Agglutination tests (each serum against B. typhosus, B. para A and B. para B)	225
Smears for malaria	23
Smears for filaria	1
Smears for trichinæ	1
Wassermann tests	3627
Gonococcus fixation tests	31
Tuberculosis fixation tests	3
Kahn tests	1077
Blood cultures	352
Blood chemistry	
Sugar	782
Urea N	277
N P N	77
Uric acid	66
Creatinin	208
Chlorides	35
Calcium	1
Acetone	51
pH	6
Icterus index	22
Van den Bergh	8
II Urine Examinations:	
Routine, chemical and microscopic	9615
P. S. P.	101
Bacteriologic	240
Chlorides, quantitative	1
For mercury	3
For B. tuberculosis (smear)	8
III Sputum Examinations:	
Routine	270
Pneumococcus typing	28
Bacteriologic	4



IV Feces Examinations:

Routine	177
Bacteriologic	280
For B. tuberculosis	2

V. Fluids:

A. Gastric	
Routine	58
For mercury	1
For cyanide	2
For quinin	1
B. Pleural	
Cytologic	28
Bacteriologic	28
C. Ascitic	
Cytologic	7
Bacteriologic	7
D. Cyst fluid	
Cytologic	1
E. Spinal	
Cytologic	161
Bacteriologic	161
Chemical	161
Colloidal gold	161
Wassermann	161

VI Examinations of Milk:

Routine, Chemical	17
Bacteriologic	3

VII Bacteriologic Examinations Not Listed Above:

Smears	569
Autogenous vaccines	103
Cultures of pus	730
Diphtheria cultures	980
Dark field	13
Cultures of bile	10
Examination of dog's brain for rabies	1
Animal inoculations	21

VIII Miscellaneous:

Allergic reactions	45
Schick tests	72
Liver functional tests	4
Von Pirquet tests	4
Analysis of calculi	5
Analysis of liquors	44
Examination of semen	1

IX Tissue Examinations

	487
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X Autopsies

	36
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Total Examinations:

	5
Blood	18,466
Urine	9,968
Sputum	302
Feces	459
Fluids	938
Milk	20
Bacteriologic	2,427
Miscellaneous	175
Tissue	487
Autopsies	36

Grand Total

	33,278
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Dr. David B. Allman, chief of the surgical service, submitted his report for the months of August, September and October, 1926. The total number of operations was 337, with a mortality of 12 cases, approximately 3.5%. A brief report of these mortalities follows:

Case 1. Chinaman, 65 years of age, admitted in moribund condition, presenting a large strangulated hernia which had been out for some time. Fecal vomiting was present, accompanied by general peritonitis and an advanced pulmonary tuberculosis. No operation was performed and patient died a few hours later.

Case 2. Male, aged 48, admitted with a strangulated hernia. Operation immediately performed with the removal of 16 in. of ileum. Patient died 3 days later.

Case 3. Female, white, aged 17, suffering from brain injuries received in an automobile accident. Died 3 hours after admission.

Case 4. Male, aged 25, suffering from a wedge-shaped compression of the bodies of the 9th and 10th thoracic vertebrae; lower vertebrae displaced posteriorly  $\frac{1}{4}$  in. Laminectomy was performed; patient died 164 days later.

Case 5. Male, age 75, admitted with a severe compound fracture of the skull, following an automobile accident. Died shortly after admission.

Case 6. Adult male, admitted with an extensive fracture of base of skull, fracture of the 6th and 7th cervical vertebrae. Died shortly after admission.

Case 7. Female, aged 52. Admitted with an incarcerated epiplocele and strangulated intestines. Died 4 days after operation.

Case 8. Child admitted with a complete evulsion of both buttocks and evidence of internal injuries as a result of being run over by an automobile. Died from shock 2 hours following admission.

Case 9. Adult female, admitted in a condition of pronounced shock as a result of an automobile accident, causing severe contusions of the chest and abdomen, with probable rupture of the right kidney. Blood pressure on admission was 48/0. At no time was this patient in a condition to stand operative intervention.

Case 10. Adult male, admitted Sept. 30, with symptoms of perforation, accompanying typhoid fever. Died 9 days after operation.

Case 11. Male, aged 36. Operated upon for a ruptured gangrenous appendix; death 8 days later.

Cas 12. Male, aged 64, whose failure to heed the advice of the attending physician and surgeon unquestionably resulted in his death. Dr. Allman had seen this patient 48 hours prior to operation, at which time he refused operation. At time of operation patient had marked distention of the abdomen and persistent vomiting with symptoms of general peritonitis. Death occurred 5 days later.

Dr. Allman made brief and pointed references to those interpretations of physical findings warranting early surgical intervention, especially emphasizing appendicitis. He quoted statistics showing that the figures covering the whole of England and Wales show an increase of mortality in appendicitis of 7.3% between the years 1913-23, inclusive, comprising a registration area over 87 millions. He presented the following case reports before the Staff:—

Case 1. Italian male, aged 39, a machine worker in Egg Harbor. August 12, while sawing a board he was struck in the abdomen by a piece thereof, and subsequently complained of slight pain in the abdomen. He did not faint and did not vomit. Two hours after the accident he was admitted to the Atlantic City Hospital with a temperature of 98.4°, pulse 68 and respiration 24. Patient's bowels had moved since the accident and he had also voided. Physical examination revealed nothing other than a somewhat rigid abdomen with no special points of tenderness; the general appearance of the patient was one of absolute well-being, and he felt fine. It was a question whether this rigidity was due to muscle spasm or whether it was true rigidity. Leukocytes numbered 9100 with a poly-

morphoneuclear count of 93%. Operation disclosed a rupture of the ileum in two places. The patient made an uninterrupted recovery.

Case 2. Male, adult, admitted at 3.15 a. m. with excruciating abdominal pain in the epigastric region. The pain was initiated 3 days prior to admission and was associated with nausea and loss of appetite. On the following day the pain increased in severity so that the attending physician administered morphin. The patient was admitted 2 days later, at which time he had a temperature of 100.2°, pulse 130 and respirations 32, blood pressure 144/80. Leukocyte count was 22,550, polymorphonuclear leukocytes 87%. At 9 o'clock that same morning leukocytes were 23,500, polymorphonuclear cells 92%. The urine report disclosed 100 mg. per cent albumin, innumerable hyaline and coarsely granular casts; and 200 leukocytes to the field. The following leukocyte counts were taken at intervals.

	Leukocytes	Polymorphonuclear
12.00 Noon	19,450	80%
1.00 p. m.	18,800	79%
2.00 p. m.	14,550	81%
3.00 p. m.	17,700	82%
Next a. m.	17,400	74%

Patient remained in the hospital for 6 days, during which time the temperature, pulse and respirations gradually resumed normalcy. The outstanding feature of this case was a condition simulating a severe abdominal phase which was caused by a severe nephritis.

Dr. Allman concluded his presentation with an expression of thanks to those who cooperated with him during his time of service.

Dr. C. Hyman, resident physician, presented the following case. Male, aged 56, married. Poultryman by occupation. Chief complaint, sudden onset of vomiting, projectile in character, followed by persistent dysphagia. Family history negative.

Personal history: health always good; moderate smoker and user of alcoholic beverages; pneumonia at the age of 25; malaria at 30. One year ago suffered a mild attack of arthritis of the right knee; 15 years ago sustained several fractured ribs on the left side as the result of an accident; 9 years ago in another accident received a similar fracture on the same side. Appetite always good, bowels regular; occasional attacks of indigestion during the last 4 years. Slight attacks of epigastric pain immediately after eating. No dyspnea until present illness.

Present illness: Patient was apparently perfectly well and going about his usual duties. October 1, he felt a bit hungry and after he took his first mouthful of coffee, it was immediately regurgitated. This was projectile in character. He felt weak and nauseated. There was no particular pain, except for a choking sensation when he lay flat in bed. He vomited almost continually for 2 or 3 days. The vomitus contained visible particles of food swallowed during that interval. There was a large amount of bile present. The difficulty in swallowing gradually became worse and for 7-10 days patient was unable to swallow water. In order to satisfy his thirst, he resorted to small mouthfuls of cracked ice. After about 2 weeks he had hiccups which persisted for about 2 of 3 days. When this abated, there set in a moderate productive cough. This cough was so severe that it induced abdominal pain. Patient would bring up large amounts of white phlegm; at intervals there would be moderate amounts of mucopurulent expectoration. His dyspnea became

progressively worse, and frequently he became orthopneic. The dysphagia continued, cracked ice and milk in teaspoonful quantities was all that he could swallow. About 2 weeks after onset of symptoms semisolid foods in very small quantities were retained. There had been no vomiting since the onset, but occasionally about a mouthful of food would be regurgitated. Asthenia and loss of weight had been progressive and anorexia of marked degree developed.

Physical examination: Fairly well developed elderly man; emaciated and anemic in appearance. Seemed worn out as if from a long illness; answered questions with great effort, and was obliged to take frequent periods of rest. He was propped up on 2 pillows, slightly short of breath, slightly cyanosed, but with a marked general pallor. There was evidence of arteriosclerosis of the temporals; very marked mouth infection; slight nasopharyngeal injection. There was visible pulsation in the suprasternal notch, marked cervical adenopathy, most marked on the left. The glands were hard and matted together, forming a large clump above the left clavicle. The most interesting physical signs were found in the chest. The chest was symmetrical, the expansion over the entire right side markedly diminished, with fullness of the inter-spaces. Absence of vocal fremitus over the right lung from the third rib anteriorly down to the base. Palpable rhoncal fremitus over the entire chest. There was absolute flatness on percussion from the level of the third rib anteriorly and the fifth dorsal spine posteriorly down to the base. Breath sounds were hardly audible and seemed to have a tubular quality. There were numerous coarse and cracking râles, and a rough friction rub. The left lung showed signs of compensatory breathing with some congestion at the base. The right dome of the diaphragm was very much depressed and did not make the inspiratory and expiratory excursion. The heart and aorta were displaced about 1 in. to the left. There was no evidence of cardiac hypertrophy; there was, however, an advanced myocarditis. The liver was palpably enlarged to about 3 fingers breadth below the right costal margin. It felt smooth and firm. The left lobe of the liver seemed enlarged out of proportion to the right. The abdomen was otherwise devoid of physical signs. The reflexes were all normal. All the palpable vessels were markedly sclerotic. There was no pulsation at the left radial artery, but a hard pipe-stem vessel could be palpated. Temperature on admission was 99°, pulse 120, respiration 22. Blood Wassermann was negative.

The treatment was along conservative lines. Patient was put at absolute rest and given digitalis for the cardiac condition. A provisional diagnosis of mediastinal neoplasm with effusion in the right pleural sac was made. X-ray report: "Stereoscopic films of this patient's chest show a density on the right side which begins at the level of the second rib and fourth dorsal spine, and extends downward to the base. The diaphragm on this side is depressed, and the arch of the aorta is pushed over toward the left side, while some of the density may be due to consolidation of the lung, I believe that there is probably some fluid present."

Three days after admission a paracentesis thoracis was performed and 850 c.c. fluid was removed. It was a creamy, green looking material, resembling pea soup. There was no discomfort following its removal and the heart came back about ½ in. toward its normal position. The culture of this fluid was a pure nonhemolytic



streptococcus. Patient was tapped again the following day and about 500 c.c. of the same material removed. He felt very much relieved, his only discomfort being a vomiting spell which left him weak. The vomitus was thin, sour and bile stained; it contained no solid food as he was taking only liquid nourishment and very little of that.

The patient died on the nineteenth day following admission, of asthenia and circulatory failure.

Dr. W. George, resident physician, presented the following case. A colored male, aged 28, carpenter by trade, was admitted to the Medical Ward of the Atlantic City Hospital Oct. 31, 1926, complaining of a cough and pain in the right side of the chest. Family history essentially negative.

Personal history: Measles and pertussis in childhood and a probable pneumonia infection at 10 years of age. Questionable history of pleurisy; slight chest pains at various times. At 20 years he contracted a specific urethritis and 2 years later had a chancre.

About October 18, 17 days prior to admission, the present illness began with generalized aching of the muscles, chills, and severe pain in the back. Patient believed he had fever at this time. Three days later a nonproductive cough and severe pain developed in the right lower chest. He was slightly delirious, and constipated to the point where cathartics alone produced results. On admission he had a cough, pain in the chest, was constipated, moderately distended and slightly dyspneic. There was frank clinical evidence of consolidation of the lower lobes of the right lung, and the spleen was slightly enlarged. Temperature was 103°, pulse 100, and respirations 28. Laboratory reports showed an albuminuria, a leukocytosis of 28,400 with 83% polymorphonuclears. The blood Wassermann was negative.

In view of the laboratory and clinical findings, a diagnosis of lobar pneumonia was made.

On the second day after admission, which was the sixteenth day after onset of symptoms, a Widal Test was made, since there was evidence, clinically, of improvement in the condition of the patient. Agglutination of *Bacillus typhosus* was obtained in a dilution of 1:160 and a diagnosis of Typhoid Fever was made. Repeated cultures of the blood, urine and feces failed to reveal at any time the presence of any organisms of the typhoid group. However, a Widal taken 53 days after onset showed agglutination in dilutions of 1:320, which confirmed the clinical diagnosis that a typhoid infection existed.

The pneumonia condition began to clear 5 days after admission and on the tenth day the blood showed a moderate secondary anemia, a leukocyte count of 6200, of which 65% were polymorphonuclears, and 34% were lymphocytes. The spleen was definitely enlarged, the pulse 80, respiration 26, and the temperature chart showed a continuous fever. Here the clinical course was that of an ordinary typhoid fever.

Dec. 3, fifty-three days after onset of the disease, the patient complained of pain of moderate severity in the right hip joint. The pain continued, and 9 days later a contraction of the muscles appeared in the affected side; the patient was unable to extend the thigh and leg. A phlebitis was suspected, but there was never any clinical evidence that such was the case. An x-ray at this time showed a slight irregularity of the upper border of the right acetabulum, which presumably, was due to changes in the bone. There were no bone changes in the lum-

bar spine at this time. A Bucks extension was applied to reduce the contracture, and alleviate the pain. After several days with the parts in extension this was accomplished.

The general condition of the patient had improved at this point, but the temperature chart showed a continuous, intermittent fever, which suggested the presence of a septic process. Culture of the blood produced no organisms, and no focus of infection could be demonstrated.

Dec. 28, the patient complained of pain and tenderness in the lumbar region; examination revealed tenderness and spasticity of the musculature from the last dorsal to the third lumbar vertebra. The roentgenologist reported no evidence of osteomyelitis of the third, fourth and fifth lumbar vertebrae; the defect in the right acetabulum persisted and there was no evidence of any pathologic condition in the sacro-iliac joints.

During the next 12 days there was the gradual development of what appeared to be, clinically, a cold abscess over regions of the ninth dorsal to the second lumbar vertebrae. Apparently the abscess was deep seated but since fluctuation was elicited, an exploratory puncture was done and 5 c.c. pus mixed with blood was obtained. This, on bacteriologic examination, was found to be a pure culture of *Staphylococcus aureus*. The blood count at this time showed the presence of a moderate anemia with a leukocytosis of 18,700, of which 78% were polymorphonuclears.

The roentgenologists reported irregular bony changes of the right side of the first and second lumbar vertebrae, and marked atrophic changes of the body of the fourth lumbar vertebrae.

Operation was then decided upon, after the possibility of the tubercle bacillus as the causative organism was ruled out on the grounds of the multiplicity of the lesions, the occurrence in conjunction with a disease known to produce such lesions, the rapid development of the conditions and the rapid improvement following incision and drainage.

Three incisions were made under local anesthesia and a small quantity of pus was obtained which bacteriologic examination showed to be a pure culture of *Staphylococcus aureus*. A post-operative increase in temperature, followed evacuation of the abscess, but it later fell to normal and the general and local condition of the patient improved rapidly. He was soon able to sit up. The blood count taken shortly after the operation showed a total leukocyte count of 12,200 with 83% polymorphonuclears.

At the present date the patient is out of bed in a wheel chair, is gaining weight, and is free from pain in the lumbar region. The incisions have ceased to drain and are almost closed, and the patient will be discharged from the hospital in a few days.

This case is presented because of the comparatively unusual complications arising in a typhoid infection. The complication of periostitis was suspected of being due to the typhoid organism, but bacteriologically this was never demonstrated. Apparently it was the result of a secondary staphylococcus infection.

Dr. Milton S. Ireland reported a case of hemolytic jaundice of the newborn. Dr. L. Rosenberg outlined a case of ruptured gangrenous gall-bladder. Dr. Joseph H. Marcus reported a case of *Bacillus coli* meningitis in a baby aged 12 months. Following the presentation of the scientific program a general discussion took place which embraced each service reported and all case reports presented.

**BERGEN COUNTY.**

Spencer T. Snedecor, M.D., Reporter.

The regular meeting of the Bergen County Society was held at Hackensack Hospital on Tuesday, February 9, with 48 members present. On recommendation of the scientific committee the next meetings will be held in rotation at the various hospitals, Holy Name, Englewood, Hackensack and Bergen Pines. The staff of each hospital shall present the program for the evening with papers and clinical demonstrations as they see fit.

Dr. Harry E. Stewart, of New Haven, President of the New York Electrotherapeutic Society, gave a lecture on "The Place of Physiotherapy in Modern Practice". His talk was a coherent, plain-spoken description of the field covered by physiotherapy in the routine practice of medicine. It was intelligible to all and attentively received by the members.

The American Medical Association now has a Council on Physical Therapy and the American College of Surgeons is requiring a Physiotherapy department in every class A hospital. Dr. Stewart started his work with physiotherapy in the army and made note of the fact that every one of the 102 physicians engaged in that work in the army is still carrying it on in private practice. Electrotherapy covers about 50% of the work.

Dr. Stewart first described the galvanic current as a chemical force with different effects at the two poles. The positive pole has a vasoconstrictor, sedative action and toughens scar tissue; the negative pole causes vasodilation, irritation, and softens scar tissue. The interrupted galvanic current contracts muscles and is useful in muscle testing. When the galvanic current can be used in the form of surging waves, or sinusoidal, it is best for treatment. Faradic is an induced alternating current which is serviceable as a rough test to find out if nerve function is interfered with. Static is a decongestor with superior effects. It has been much abused and exploited in the past but its proper use is known; for prostatic massage, subinvolution of the uterus and deep edema it is administered in the form of the Morton wave; static sparks relieve pain and break up adhesions.

The high frequency current generating heat and applied as diathermy, is one of the most valuable therapeutic agents. Heat may be generated in any tissue in the body by the resistance to passage of a high frequency current. By so doing, an active hyperemia is created and the indications for the use of such an effect are wide, indeed. The contraindications to diathermy are danger of hemorrhage, as in tuberculous cavities, and absorption of pus when free drainage is not present. Dr. Stewart has discarded the Oudin and Tesla currents as therapeutic playthings.

On the subject of light therapy, he mentioned that carbon arc lamps are like the sun light while applications of the quartz lamp plus those from the ordinary radiant heat lamp give the same effects as the sun. The water-cooled ultraviolet lamp gives off more of the shorter ultraviolet rays which are strongly irritating and are bactericidal. He advises the use of combined agents, saying that mercurochrome plus ultraviolet radiation is twice as effective as either alone. Radiant light is efficient only for superficial heat, and is applicable to the early stage of boils and early acute otitis media in children.

Of hydrotherapy he mentioned the paraffin and whirlpool baths as the most useful; in the former the skin surface will bear a continuous heat of

122° F., while the whirlpool bath, in which the water is constantly churned and mixed with air, is most effective in stimulating superficial circulation. Massage constitutes only 6% of physiotherapeutic practice but what massage is done should be carefully prescribed by the doctor for it may be soothing or irritating according to the way it is performed.

Dr. Stewart closed his talk with a few remarks on exercise and the need for its regulation in the present day scheme of life.

**Hackensack Hospital.**

Spencer T. Snedecor, M.D., Reporter.

The regular monthly meeting of the Associated Physicians of Hackensack Hospital was held on the evening of February 21, with 23 physicians present. Before the meeting, 3 different types of doctors' call systems, for installation in the hospital, were demonstrated by salesmen. The visible system, in which the doctors' numbers are flashed in all the corridors seemed most satisfactory, because it avoided the noise of ringing bells or announcers and the confusion of the telephone system.

Dr. Vandersluis, of the house staff, reported a case of abscess of the lesser peritoneal cavity. The patient was suffering from acute abdominal distress after a long period of gastric disturbance. On opening the abdomen a large abscess was found which seemed to lead into the lesser peritoneal sac. Extensive necrosis existed and the patient did not long survive. At autopsy, the whole posterior wall of the stomach, duodenum and pancreas constituted a gangrenous mass, probably originating from a perforated gastric ulcer.

A patient who entered the hospital in diabetic coma was told about by Dr. Herman Trossbach. He was one of the first patients in this neighborhood to receive insulin and apparently could live on a strict diet and insulin in fairly comfortable fashion but, as on several previous occasions, he had neglected his diet. All available means were utilized to bring him out of coma but he failed to respond. In connection with this case Dr. Trossbach had prepared a short paper on the "Salient Facts of Diabetes Mellitus in Adults". He emphasized 2 recent reports on the disease. First, the Metropolitan Life Insurance Company's figures fail to show a fall in the death rate since insulin treatment. Secondly, there is a general tendency for authorities to raise the sugar content of the diet of these patients and lower the fats. The prevention of coma and the details of its treatment were discussed.

Dr. George M. Levitas reported on a child who died of diabetes. When first seen the child was suffering from a severe hyperglycemia. Insulin and glucose, followed by proper diet, started the little patient on an upward course, sugar free, but suddenly the child developed fever, became drowsy, and sugar reappeared in the urine. Spinal tap revealed a bloody spinal fluid, which persisted for several days. The child died without responding again to treatment. In this case it seemed probable that brain injury might have affected the course of the disease. Dr. Levitas then gave a paper on "Diabetes in Children", covering the subject in a short and instructive talk. The prognosis for children has been greatly altered since the use of insulin and the span of their lives has not as yet been measured. In diets for children more protein must be allowed than in adults, and a higher ratio of calories.



Dr. William H. Walsh, secretary of the American Hospital Association, was the guest of the evening and at the conclusion of the program offered a few comments on the value of the monthly meetings and review of the hospital records.

#### Medical Club of Hackensack.

Spencer T. Snedecor, M. D., Historian.

At the meeting of January 19, Dr. David Goldberg reported a "Case of Acute Tuberculous Pneumonitis". He described such a condition as a very definite entity, but rare and easily confused with other types of pneumonia. Dr. Goldberg's patient was a girl aged 17, who was apparently suffering from a lobar pneumonia when first seen. The process spread through the whole left chest, and she ran a protracted course with high temperature. After 4 weeks, clear fluid developed and was aspirated. While no tubercle bacilli were ever demonstrated, the course of the disease, the habitus of the patient and a strong familial tubercular history, confirmed the diagnosis. Dr. Goldberg emphasized the fact that simple unresolved pneumonia is not a well recognized condition and he quoted Dr. Morris Fisberg of New York as saying that unresolved pneumonias are nearly all founded upon a tuberculous basis.

"Serum Treatment and Immunization in Scarlet Fever" was the title of a paper by Dr. Lewis Greenberg, at the meeting on February 2. Dr. Greenberg surveyed the development of the work of some of the early preparations by the Russians, Savchenko and Gabritschewsky, who produced toxin vaccine with immunization effects over 25 years ago. The Dicks, of Chicago, and Dochez, of New York, brought forth their tests and treatment just a few years ago. Their work consisted of the identification of a strain of streptococci as the specific causative agent of scarlet fever and there they develop a susceptibility reaction, now known as the Dick Test, and an antitoxin for treatment.

The practical application of antitoxin and diagnostic tests as at present known were outlined. Prophylaxis may be effected by the injection of a toxin-antitoxin injection. One dose will probably provide immunity. The treatment of an active case consists in the injection of antitoxin serum before the fourth day and when the rash is most intense. Reports of many series of cases show that this treatment is of great value in alleviating the seriousness of the disease and its complications. Immunization may be produced by toxin vaccine injection (Lilly) in which only one dose is necessary, or by toxin-antitoxin (Lederle), a four dose preparation given at weekly intervals. Greenberg then reviewed a list of the accepted preparations on the market.

On the evening of February 16, Dr. Michael Sarla reported an "Anomaly of Biliary Passages in an Eleven Months Baby". The child was under observation for the first week with a respiratory infection, apparently a general bronchitis without fever. It then began to vomit and the abdomen became rigid. No jaundice was present. With a rise in temperature and in leukocyte count, Dr. Sarla decided to open the abdomen. Under anesthesia a large abdominal mass was palpable, extending from the costal margin on the right to the umbilicus. When the abdomen was opened this mass was found to occupy Morrison's pouch, and the gall-bladder and biliary ducts could not be found. The tumor was as-

pirated and a pint of bile withdrawn. As the baby's condition turned worse, a drain was inserted and the abdomen closed. After a stormy convalescence the baby recovered. Dr. Sarla considered this condition to be a rare anomaly, in which one of the biliary ducts was pouched, blocked and inflamed and the other elements of the biliary system displaced or absent.

#### CAMDEN COUNTY.

Grafton E. Day, M. D., Reporter.

The regular meeting of the Camden County Society was held February 8, 1927, Dr. Alfred Cramer presiding. The minutes of the preceeding meeting were read and approved.

The business committee met at 8:30 and suggested an ammendment to the Constitution to facilitate election of new members as follows: Ammendment to Article 4, Section 7, to read: Name of candidate be published at least once in the regular monthly notices and if no unfavorable report be received that his election be at the discretion of the business committee. This is to be voted on in March.

Dr. Henry Seelaus spoke on "Tumors of the Neck", and the topic was discussed by Dr. A. Ross, who exhibited 2 cases, and also by Drs. Barrett and F. W. Shafer.

Honorary membership was conferred upon Dr. H. H. Davis, and the following men were elected to membership: J. H. Conolly, A. L. Stone and H. C. Schwartz.

#### ESSEX COUNTY.

Wm. M. Rathgeber, M. D., Reporter.

The regular monthly meeting of the Essex County Medical Society was held February 10, at the Academy of Medicine, Newark. President Sanford Ferris called the meeting to order at 9 o'clock and introduced the speaker of the evening, Commissioner of Labor Andrew F. McBride, M. D., who read a paper on the "Workmen's Compensation Law of New Jersey; Mutual Rights and Obligations Under It".

Following Dr. McBride's paper, the members of the Board of Adjustment, composed of Drs. E. C. Jackson, H. H. Kessler, and David A. Kraker, discussed other phases having direct bearing on the Workmen's Compensation Law as it stands today. Dr. Jackson elaborated on the obligations of employer to employee; Dr. Kessler, representing the employee, gave a resumé of the work done at the Rehabilitation Clinic at Newark, where the most modern methods of restoring function and reëducating injured patients are used; Dr. Kraker stressed the importance of having the members of the medical profession treating compensation cases sufficiently familiar with compensation laws so, as to be in a position to evaluate them.

In the general discussion that followed, Dr. McBride answered many questions relating to specific cases.

The following were elected to membership in the Essex County Medical Society: Thomas Bell, Newark; Sidney L. Cohen, Bloomfield; William H. Goldstein, Kearny; M. Kummel, East Newark; J. Livingston, Newark; Isidore Moldowsky, Newark; E. Russomanno, Newark; Charles W. Scranton, E. Orange, and Cyrus J. Strong, Newark.

The meeting adjourned at 11.30 p. m.

## Academy of Medicine of Northern New Jersey Section on Surgery, Obstetrics and Gynecology.

A. B. Abrams, M. D., Secretary.

Two cases of "Spontaneous Rupture of the Deep Epigastric Artery" were reported by Dr. Henry B. Epstein, who said in part: Nothing stimulates the interest of the surgeon so much as the unusual. The incident of such a rare lesion twice within 5 months, occurring in the practice of one individual, has in it almost an element of the bizarre.

Spontaneous rupture of the deep epigastric artery came to my attention for the first time, March 17, 1926. The patient brought to the hospital was a heavy set man, 44 years of age, weighing about 220 lb., with florid complexion. While at his usual occupation as a laborer, but not at this time exercising any unusual amount of strain, he was suddenly stricken with an agonizing cramp in the right side of the abdomen, about 2 in. above the umbilicus. Dr. Rado's examination showed temperature normal, pulse 114 and regular, blood pressure 138/84, chest negative, abdomen tender. There was a growth along the right upper and middle quadrant of the abdomen, 8 in. long and 3 in. wide, and projecting 1 in. from the abdominal wall.

The patient was given a hypodermic of morphin and taken to the hospital where I was asked to see him in consultation. I found the heart, lungs and other organs negative. There was a tumor on the abdomen, shaped like a parallelogram (of the dimensions mentioned above), with a bluish discoloration. On palpation, the tumor felt doughy, but did not fluctuate; there was no impulse upon coughing or straining, and it was irreducible. A preoperative diagnosis of probable rupture of the deep epigastric artery was made, and operation was performed at 11 a. m., 2 hours after the seizure.

An incision was made over the middle of the growth and a large amount of clotted blood turned out. The limit of the tumor was found to be the median line and it extended laterally to the outer edge of the rectus muscle. After the blood was evacuated, there was bleeding from the deep epigastric artery and vein, which was torn. The ends of both vessels were tied with chromicized catgut and the wound closed without drainage. The subsequent course of the case was uneventful and the patient left the hospital about one week after operation. He has been in perfect health since.

Four months afterward, July 22, 1926, Mrs. R. D. was brought to the hospital (also by Dr. William Rado) with a preoperative diagnosis of spontaneous rupture of the deep epigastric artery, which I recognized on account of a similarity in the history with the previous case. This patient, who had been treated by Dr. Rado for mitral endocarditis, was seized with a sharp pain in her right abdomen while sewing. The same type of tumor was found, but more extensive and spherical in outline, and of deeper blue in color. She was sent to the Newark Private Hospital and operated upon immediately under ether, an injection of morphin having been given previously. An incision over the long dimension of the tumor was made and a large hematoma was turned out; the bleeding points of the ruptured deep epigastric artery and vein were sutured and the wound was closed without drainage. The patient remained in the hospital 4 weeks; digitalis was administered for her cardiac condition. She made a complete recovery.

In differentiating this tumor from others, we must consider the possibility of a hernia coming

through a congenitally weak opening in the abdominal wall, but this can be ruled out by the fact that there is no impulse on coughing or straining. The doughy feel, communicated to the finger tips, could also be due to an epiplocele. There is very little in literature to indicate a reason for this lesion which leaves us to speculate upon the cause of its occurrence. It would seem that it might be due to a localized arteritis or a peri-arteritis, arteriosclerosis, or a hypoplasia of the vessels in which perhaps a previous infectious disease may have been the cause; or a direct trauma may have damaged the vessels, making a later rupture possible. It seems that very few such cases have been reported. I remember reading of one in the *Journal of the A. M. A.*, by Dr. Carey Culbertson, of Chicago, and another by a French surgeon named Kotzareff, in the *Lyon-Chirurgical*.

In all the reported cases we have reviewed there seems to have been a previous history of trauma or the condition developed after a previous operation or pregnancy. The cases which I report, however, were cases of true spontaneous rupture.

### Discussion.

Dr. Edmund III: I operated in a similar case. The patient had a mass over the right rectus muscle. I didn't make any definite diagnosis. It looked like an acute abdomen; no temperature, no rise in pulse at operation. We evacuated a hematoma, found no bleeding point. It was caused by lifting a heavy weight while at work.

Dr. Soschin: In the past 2 years we have had occasion to see 2 cases at the Newark Beth Israel Hospital. The first patient was a woman, 64 years old, who had been in the hospital before with arteriosclerosis. She was taken ill suddenly with pain in the abdomen, nausea and vomiting, and a diagnosis of appendicitis was made. She had a temperature of 101°, and a leukocytosis. Examination revealed a mass so exquisitely tender it couldn't be mapped out. We found a hematoma in the right rectus sheath. Another case, confirmed by autopsy, presented a mass in the upper abdomen. Up to 1923, 127 cases were reported; only 20 were classed as real spontaneous rupture and 3 were diagnosed correctly. The others were due to trauma. They were variously diagnosed as ovarian cyst with twisted pedicle, mesenteric thrombosis, renal colic and other conditions.

### Paper by Dr. Erdman.

Dr. John F. Erdman, of New York, then addressed the Society as follows:

The subject that I have chosen for tonight's paper is "Tumor of the Cecum with Discussion of 45 Cases", which I have read before the Surgical Society of Los Angeles. I have added 3 or 4 cases in the last 2 weeks. I regret that the lantern slides are not here but the artist disappointed me.

This series included 35 cases of carcinoma, 7 of tuberculosis and 2 of lymphosarcoma. For the sake of completeness I will say that the cecum differs from the rest of the large gut in that it is more richly endowed with lymphatics which follow the course of the ileocecal vessels. The lymph systems may drain into 5 different groups of glands around the cecum. So much for the anatomy briefly stated.

The cecum is the most frequently involved portion of the intestine in actinomycosis. Histologically this is caused by a Gram positive organism which enters the mouth through carious teeth. Pathologically, it is classified as granuloma. It is characterized by multiple sinuses with copious discharge of sulphur-like granules. Diagnosis can



easily be made. I removed a cecum in which the entire mucosa was destroyed. I suspected tuberculosis, but the pathologist to whom I showed it said it was syphilis. They are still working to prove it was syphilis though I cling to my original opinion. The authors mention 12 instances of dermoid cysts of the cecum.

Lymphosarcoma is an extremely rare disease of the cecum; 13 cases were found. It does frequently occur in the rectum and small intestines. With sarcomatosis of the gut there is a tendency toward dilatation, in contradistinction to carcinoma. Our series include 1 case of lymphosarcoma.

It is agreed that tuberculosis occurs primarily and also secondarily in the cecum. Tuberculosis of the cecum is common in a patient having involvement elsewhere, and in necropsy it has been proved that the gastro-intestinal tract is involved in 90% of those cases presenting other involvement. The best explanation for predilection of the ileocecal region is explained by the fact that a great majority of the primary cases are infected by the bovine type of bacillus indicating an infection through milk. In early adult life, the average age was found to be under 20 years. The insidious onset and long freedom from symptoms often prevent early diagnosis and therefore early treatment. Pain is an early evidence, associated with tenderness, rigidity, epigastric discomfort, belching and vomiting. Serum tests are of little aid. Brown, Livey and Haft stress the difficulty of recognition by clinical symptoms. Pathologically, there are 2 distinct types; ulcerative and hyperplastic. The ulcerative encircles the gut because the lymphatics run circularly. Six or seven weeks ago, I was called to see a man in Long Island. It was a case of intestinal obstruction. The man was a builder of ships, 58 years of age. I first saw him at about 7:40 and operated at about 11 o'clock. When we exposed the abdomen, the colon was negative but the ileum, about 18 in. above the ileocecal valve, was distended and a portion was totally obstructed, or so it appeared; when I turned to reach the catheter to do an enterostomy, something slipped through my finger and where we passed through the stenotic portion, we pulled out a clam. This man was very stenosed. The mucous membrane of the intestine was destroyed.

The hyperplastic type of tuberculosis is considered to be primary in origin; the ulcerative type is secondary. Our case reports show both types of tumor, all presenting various degrees of obstruction. One was of the ulcerative or constricting type. All had at various times been diagnosed as appendicitis. A side-to-side anastomosis was done in 3 cases. The results were uniformly good. Two of these tuberculous cases in children were found in Long Island about 5 years ago where, in addition to these, I had 3 cases of tuberculous glands in the neck. One of the children died, and one, a doctor's daughter, recovered. In coöperation with the Health Department we traced these cases to a dairy with tuberculous cows.

Among the cases of carcinoma of the cecum, the youngest patient was 21 and the oldest 78. The foregut and hindgut are most peculiarly susceptible to carcinomatous invasion. A series of 129 cases showed the following incidence of carcinoma of the colon (this paper touches nothing but cecal tumors): 50 cases, rectosigmoid; 37 in sigmoid; 9 in transverse and splenic flexure; 18 in the cecum; 15 in the rectum. Tumors of the cecum are characteristic of tumors elsewhere in the colon. Gelatinous adenocarcinoma is ordinarily classified as colloid. It is described as degenerating from the nonfunctioning secreting epithelial cells.

Metastasis occurs rather late but the eventual mortality is greater than in any other type.

The most frequently involved group of lymphatic glands are the posterior cecal. This may be explained by frequency of invasion of the ileocecal valve in malignancy of the cecum. In our series, we were able to demonstrate 25% infiltration of the lymph nodes. The tumor is seldom the direct cause of death. Cachexia is usually due to superimposed infectious processes. The liver was never found to be the seat of secondary growth. Metastasis to the liver from the stomach has been exceedingly rare in my practice, but you all know how frequently the liver is involved in carcinoma of the descending colon. The longest duration of symptoms in our series was 15 years. This patient complained of "stomach trouble". Symptoms are actually due to secondary complications. Distention and vomiting occurred in about one-third of the cases. Loss of weight, varying from 5 to 30 lb., was present in about 70%. A slight leukocytosis, rarely exceeding 11,000, was noted. Stiffening of the gut with absence of peristalsis occurred very frequently. I do not know of any condition in the abdomen that produces the degree of anemia caused by carcinoma in the cecum. There are 2 absolute reasons for this: one lies in the fact of malignancy, and the other in the ulcerative surface present due to the intestinal flora. The usual x-ray finding in cecal carcinoma was defective filling, the only treatment for which is, of course, surgical. This consists in removing from 10 to 12 in. of ileum and cecum, and from one-third to one-half of the transverse colon in an end-to-end, or end-to-side, or side-to-side anastomosis of the ileum to the transverse colon. The results following the Friedrich technic are good. The post-operative convalescence is relatively smooth. I did 3 ileosigmoidostomies as palliative measures. On 2 occasions the growth was not resected. We believe that the Mikulicz operation gives the best results, although it is done in 3-4 stages. In 2 instances appendectomies had been done within a period of 5 years. These tumors might have presented symptoms of appendicitis. We have had, in a period of 5 years, 5 cases in which operation for appendicitis was done because of the backtracking of fluid and gas, giving the appearance of appendicitis. In another case a resection of the transverse portion of the colon had been done 6 months before.

Summary: In the 45 cases of cecal tumor studied, there were 35 cases of carcinoma, 7 of tuberculosis and 2 of lymphosarcoma. Carcinoma is the tumor which most frequently requires surgical intervention. A malignant tumor may simulate a chronic appendicitis.

#### GLOUCESTER COUNTY.

Henry P. Diverty, M.D., Reporter.

The regular monthly meeting was held at the Woodbury Country Club, February 17, with the following members present: Drs. Campbell, Brewer, Underwood, Nelson, Pegan and Diverty, of Woodbury; Hunter and Hollinshed, of Westville; Wood and Sinexon, of Paulsboro; Downs, Buzby and Ondovehok, of Swedesboro; Burkett, Knight and Lummis, of Pitman; Ulmer, of Gibbstown.

The social authorized organization of a Woman's Auxiliary and approved plans under consideration.

Dr. H. L. Northrop, of Philadelphia, addressed the assemblage upon the subject "Points of Surgical Interest Concerning the Abdomen".

### HUDSON COUNTY.

M. I. Marshak, M.D., Reporter.

The Hudson County Medical Society met at the Jersey City Hospital, February 1, with W. Friele, M. D. presiding.

A motion was passed instructing the Necrology Committee to draw up resolutions to send to the family of the late Dr. Joseph F. Delahunt.

The report of the special committee on sectional meetings was as follows:

This Committee met January 9, 1927, and recommends:

I.—That there be two sections in the Hudson County Medical Society, namely, a section on general surgery to include obstetrics, gynecology, eye, ear, nose and throat surgery, urology, roentgenology and orthopedics; and a section on general medicine, to include physiology, cardiology, pediatrics, dermatology and psychiatry.

II.—That the membership of the County Society be invited to enroll themselves in these sections.

III.—That the members thus enrolled in each of the sections elect for their respective sections a chairman, a secretary and a reporter.

IV.—That the Hudson County Medical Society meet monthly, as heretofore, on the first Tuesday of each month, except the three Summer months.

V.—That the program each month be in charge alternately of the two sections above indicated.

VI.—That each section in the month in which it does not have charge of the program of the regular stated meeting of the Society, hold a special meeting of its own on the fourth Tuesday night of that month. As an example, in October the Section on Surgery would be responsible for, and supply, the scientific program for the general stated meeting of the Hudson County Society. In the same month, the Section of Medicine would hold its own section meeting on the fourth Tuesday night. In November, the Section on Medicine would have charge of, and be responsible for, the scientific program of the general stated meeting of the whole Society, and the Section on Surgery would have its special scientific session on the fourth Tuesday night of that month.

VII.—That the Section chairmen shall be ex officio members of the Program Committee of the Hudson County Medical Society.

VIII.—That the officers and executive committee of the Hudson County Medical Society shall, in so far as is possible, expedite the business portion of the regular monthly sessions, in order to devote as much time as possible to scientific programs as provided herein by the Sections.

IX.—That the last meeting before Summer Vacation each year, in accordance with the Constitution and By-Laws of the Hudson County Medical Society, shall be devoted entirely to business concerned with the good and welfare of the County and State Organizations.

X.—That the remaining meetings before the Summer Vacation of the current year be devoted in so far as necessary to the formation and organization of the sections herein provided for, in order that the new scheme herein presented may start in full-fledged operation with the first Fall meeting in 1927.

Respectfully submitted,

M. I. Marshak,  
F. J. Quigley,  
H. T. VonDeesten,  
S. A. Cosgrove, Chairman.

These recommendations were accepted and on motion the president was directed to appoint temporary chairmen, one for each section. These

chairmen are to call a meeting of those interested for organization purposes.

Dr. Friele announced that the March meeting will be a joint meeting with the Hudson County Bar Association. It will be held at the Carteret Club in Jersey City, and a collation will be served.

Dr. Martin E. Rehfuess, Associate in Medicine at the Jefferson Medical College, Philadelphia, spoke on "The Medical Treatment of Gastric and Duodenal Ulcer." The causes of these ulcers are many and diverse. Experimentally, a large number of different types of toxins will produce these ulcers in the presence of high acidity of the gastric contents. In the presence of low acidity or anacidity, they will not form. While most ulcers begin acutely, eventually mechanical factors, such as induration, fibrotic changes and hour-glass stomach, supervene in producing the final picture of ulcer. Malignant degeneration occurs in 2-5% of the gastric ulcers but rarely, if ever, in the duodenal type.

In treating gastric and duodenal ulcers it must be borne in mind that there are both medical and surgical forms and the first essential step is to establish the status of the given case. Any ulcer showing organic distortion, stenosis or paralysis of gastric function is distinctly surgical. The medical ulcers are uncomplicated, nonmechanical and nondegenerated. Though there are differences of opinion among gastro-enterologists as to the exact status and treatment of ulcers medically, on the whole the basis of treatment among all is approximately the same, the main point being an attempt to decrease the work of the stomach.

In studying different food stuffs, it was found that the usual proteins, such as meats, produce a high acidity and have a prolonged evacuation time, while bread, certain carbohydrates and vegetables create a lower acidity and have a shorter evacuation time. Mothers' milk produces a gastric content analogous to that of the fasting stomach with an acidity as low as 40.

In treatment, therefore, one should prescribe a diet which will produce as low an acidity as possible together with the shortest evacuation time, thereby giving the stomach as much rest as can be had and still maintaining proper nutrition. Small meals at frequent intervals are better than larger ones at longer intervals.

Ordinary cases of uncomplicated ulcer will be clinically relieved in 24-48 hours, though the lesion does not change for a long time. To cure an ulcer the treatment must be continued for a period sufficiently long to ensure healing. In the experience of the speaker, from 6 months to 3 years may be necessary. The treatment is ambulatory after the acute symptoms have passed. X-ray signs of gastric ulcer clear up rapidly while those of the duodenal type are very slow to disappear. Tobacco has been found to prevent healing and must therefore be interdicted. The same is true of alcohol.

Gastric ulcer is as a rule more serious than duodenal and is frequently of the surgical type.

Dr. Albert A. Berg, attending surgeon at Mt. Sinai Hospital, New York City, spoke on "The Surgical Management of Gastric and Duodenal Ulcer".

Of the last 1000 cases of ulcer, 600 were treated by "palliative operations", such as gastro-enterostomy, partial gastrectomy, etc., while 400 were treated radically by subtotal gastrectomy.

The life history of ulcer shows that some terminate spontaneously; others disappear temporarily to reappear at a future time. This factor is called "the periodicity of ulcer". Still others maintain their characteristics, despite the disappearance of symptoms for longer or shorter periods.



Ulcers are usually multiple, both gross and microscopic, and are accompanied by a polypoid infiltration of the mucosa on the surface of which erosions occur, with round cell infiltration which heals by fibrosis. This pathologic picture is called "chronic specific gastritis". "No ulcer will form in an anacid media". Dr. Berg showed slides to demonstrate schematically the formation of acid; (1) by psychic influence through the vagus; (2) through food contact with the stomach wall; (3) by hormone action from the antrum; (4) by food contact with the upper jejunum. Intubation feeding through a duodenal tube does not affect any of these factors, neither does dieting. The "palliative operations", such as gastro-enterostomy, pylorotomy, ulcer excision, etc., have little effect on any of these factors and gastric content examination after operation shows a high acidity. Subtotal gastrectomy does not affect factors 1, 2 and 4, but completely removes factor 3, and at the same time removes the entire ulcer-bearing surface. After operation 75% of cases are acid free, while 10% show less than 10 c.c. acid.

To cure ulcers one must do away with the chronic gastritis, the acid and the infection which are universally present in these conditions. Subtotal gastrectomy is the only method of treatment which accomplishes all of these ends at once.

Ulcers of less than 4 month's duration should be treated medically and only operated on if the treatment is ineffective. Time is an important factor in the cure of ulcer. Berg stated that of ulcers of less than 6 month's duration, 60% are cured; of those which have lasted from 6 to 12 months, 33% are cured; from 1 to 3 years, 26.3% are cured; from 3 to 5 years, 20% are cured, and from 5 to 10 years, 2.7% are cured.

Subtotal gastrectomy does not produce atrophy of the gastric mucosa or of the acid cells. Although there are frequent recurrences after the "palliative type of operations", in the 400 cases of subtotal gastrectomy, there has not been one case of recurrence. Dr. Berg described the operation in detail, illustrating the various steps with lantern slides.

Drs. Dickinson, Miner, Bartone, Perkel, Rehfuess and Berg took part in the discussion.

#### Testimonial Dinner.

On the evening of February 5, 1927, a Testimonial Dinner was tendered to Dr. Lucius F. Donohoe, by the Medical Staff of the Bayonne Hospital, in recognition of the tenth anniversary of his presidency of the Board of Governors. The dinner was given in the El Patio Room of the McAlphin Hotel, New York City, and was attended by Drs. L. F. Donohoe, W. W. Brooke, G. H. Sexsmith, W. A. Pinkerton, A. C. Forman, C. J. Larkey, L. E. Deary, M. J. Weiss, M. S. Frank, S. R. Woodruff, W. H. Axford, W. W. Riha, E. Thum, A. J. Molloy, M. Shapiro, M. Tepper, J. Nevin, J. Londrigan, E. Claxton, J. Connelly, S. Chayes, W. L. Williamson, B. Lipschitz, L. W. Klugman, G. L. Higgins, P. W. Skladzien, T. S. Brady, E. E. Lupin, J. W. Harvey, J. L. Ferenczi, W. Wiren, J. Murray, D. D. Feinberg, J. S. Madras, and M. I. Marshak.

#### Osler Clinical Society.

M. I. Marshak, M. D., Secretary.

The Osler Clinical Society met at the Union League Club, Jersey City, on February 16, with Dr. Jaffin presiding.

Dr. Jaffin announced that on Wednesday, March

16, the Society will hold its annual meeting, open to all the medical profession, at the Jersey City Hospital. The essayist will be Dr. David Reisman, Professor of Medicine at the University of Pennsylvania, and the subject will be the "Treatment of Pneumonia".

Dr. Louis Franklin read the histories and showed pathologic specimens from 6 illustrative surgical kidney cases. (1) Kidney tumor; onset of symptoms 2 months before operation with pain in the right loin, radiating down the course of the right ureter, blood in the urine with normal kidney function. Blood was seen coming from the right ureter. A hypernephroma was found on operation. The patient died of lung metastasis about 1 yr. later. Ordinary x-ray plates showed no abnormal shadows in the region of the kidneys. (2) Tuberculosis of the right kidney. The pain was paroxysmal in character, and was of a number of years duration. An appendectomy had been done 2 years previously. The symptoms, aside from pain, were distinctly gastro-intestinal. There was tenderness in the right hypochondrium; acid urine with pus; a cystitis with a bullous edema and pus coming from the right kidney. The function of the left kidney was normal and the chest examination made before operation was negative. The patient died of pulmonary tuberculosis. (3) Tuberculosis of the left kidney with complete destruction. There was a large tumor in the left loin and marked backache but no urinary symptoms. (4) Hydronephrosis. This case gave a history of left renal pain of years duration. At intervals between attacks the patient felt perfectly well. Pyelography made the diagnosis after an ordinary plate showed nothing pathologic. (5) Chronic pyelonephritis with complete destruction of the left kidney. There was pain in the left kidney region and lower abdomen with complete lack of function of the left kidney. On operation, the left kidney was found to be a shell. (6) Calculus pyelonephritis. In this case there was a long standing history of pain on the right side with blood and pus in the urine. Examination demonstrated a large stone in the left kidney pelvis with pus coming from the left ureter. The right kidney was found to be normal with a normal function. At operation the left kidney was removed.

Drs. Dickinson, Koppel, Miner, Bartone, Friele, and Franklin took part in the discussion.

Dr. E. G. Waters reported a case of cholecystitis and infective cholangitis in typhoid fever. This patient was a male, 48 yr. of age. The onset was sudden with sharp pains in the right upper quadrant accompanied by vomiting and constipation. Jaundice developed within 3 days. The blood cell count showed 21,000 white cells with 80% polymorphonuclears. The temperature went to 105.4° F. with a pulse of 120 and respirations of 22. The abdomen was distended; no spleen was felt, but the liver edge was palpable 2 in. below the costal margin. A Widal taken at this time was negative. Operation disclosed the condition named above with an enlarged spleen. The postoperative course was typical of typhoid fever though the Widal remained negative. The patient died 8 days after operation. An autopsy showed typical typhoid ulcers in the colon.

Dr. Joseph Koppel described the case of a woman 3½ months pregnant who had been operated upon for an ectopic 2 years previously. This case had urgency and frequency with bearing down sensations every 2 or 3 days. A thor-

ough urologic examination showed nothing abnormal except that the urine was "loaded" with urates during these attacks. At other times the urine was clear. He suggested that the condition was possibly due to nervous stress.

The talk of the evening on "The Study of Nonspecific Colitis", was given by Dr. John L. Kantor, Attending Gastro-Enterologist at Montefiore Hospital and Chief of the Department of Gastro-Enterology of the Vanderbilt Clinic.

Colitis as now understood is an inflammation or irritation of the lining of the colon, with or without pus. Constipation is unphysiologic and pathologic; 50% of cases suffering from constipation, if properly studied, show colitis.

Etiology. First, constipation and the resultant use of irritating cathartics. Second, long standing disturbance of the autonomic or sympathetic nervous system. Third, spasmophilia of the distal colon. Fourth, disease of the glandular system, such as hyperthyroidism, Addison's disease, etc. Fifth, abnormal conditions of the upper intestinal tract. Sixth, subnormal gastric acidity or anacidity. In many cases, colitis is distinctly a primary condition.

Symptoms. Distress in the abdomen, pains, flatulence and abnormal bowel movements. The pain is due to spasm. Flatulence is due to improper absorption of gasses formed during digestion. About 4 liters of gas are formed during a day, 1 liter of which is passed as flatus, while the rest of the gas should be absorbed and eliminated through the skin and respiratory tract. If it is insufficiently absorbed, it accumulates and produces flatulence. It is very difficult to differentiate between chronic appendicitis and colitis of the cecum, and this accounts for the large number of failures in operations for chronic appendicitis.

The colon should be divided into two distinct parts, depending on function. The right colon is dilatible and acts as a reservoir for the soft contents sent to it through the ileum. It also abstracts water from this material and thus prepares it into the proper consistency to be passed along and expelled by the left colon.

The normal stool is a formed solid cast of the left colon in longer or shorter segments. Abnormal stool is soft and unformed, watery and gassy with a foul odor, or it may be in larger or smaller hard pellets. There is always an increased amount of mucus in the loose stools.

The diagnosis depends on the history of distress, pain and flatulence with abnormal stools, feeling of tender spots along the course of the colon or an "iliac cord" on the left. If the distal colon is involved, a proctoscopic examination should be made, which will disclose an irritated red mucosa with difficulty of penetration due to spasm, some mushy, frothy stool and even ulcerations. The most important part of the study consists of a G. I. x-ray series. A test meal will give information in regard to the gastric acidity. The stool must not have a putrifactive odor, must not be hard and lumpy, must be alkaline to litmus (mushy and frothy stools are usually acid). Microscopic study for ova and undigested food remnants is important. In the Roentgen study, the normal colon time table is important as a guide. The cecum should show the barium in 4 hours, the hepatic flexure in 6, the splenic flexure in 9 and the rectum in 24 hours, at which time the first stool showing the barium is passed. In 48 hours, the second stool is passed and in 72 hours the colon should be empty of barium.

Any departure from this time table is pathologic.

Treatment may be summarized as:

- (1) A complete survey of the situation.
- (2) Removal of all irritants. "Stop cathartics?"
- (3) Give rest to the colon.
- (4) A bland diet with increased bulk.
- (5) Castor oil at intervals or occasional mineral oil and agar.
- (6) Occasionally bromide and chloral mixtures with belladonna.
- (7) If overgrowth of bacteria, use barium or kaolin not other bacteria.
- (8) Rest in bed if necessary.
- (9) Heliotherapy, hot moist packs, etc.

Drs. Friele, Levin, Bartone, Percel, Waters, Jaffin and Kantor discussed the paper.

### MERCER COUNTY.

A. Dunbar Hutchinson, M. D., Reporter.

The Mercer County Society met at the Carteret Club, Trenton, on the evening of February 9, President John B. Sill presiding.

After the reading of the minutes, Dr. Sill introduced Dr. Louis Levin, of Trenton, who spoke most entertainingly on the "Electrocardiograph—Its Practical Value". Dr. Levin demonstrated with some excellent slides the intricate workings of the blood stream, explaining in a very interesting manner the significance of the tracings, and, demonstrating, by his ability to hold his audience, his thorough knowledge and close study of this very useful branch of medicine. The subject was discussed by a number of those present; Dr. Levin closing with a well defined argument in favor of the use of this instrument.

Dr. Costill again urged the profession to bring every effort to bear in support of the campaign against cancer.

After luncheon the society adjourned.

### MONMOUTH COUNTY.

Frank J. Altschul, M. D., Reporter.

The regular monthly meeting of the County Medical Society was held at the Berkley-Cataret Hotel, Asbury Park, Thursday evening, February 24, under the presidency of Dr. B. H. Garrison, of Red Bank.

The Editor of the Journal reported on the development of that periodical and the activities of his office as Executive Secretary of the State Medical Society. Later, he discussed the progress being made in the campaign for Periodic Health Examinations, and exhibited the moving picture film depicting the technic of a routine examination of this sort.

There was a large attendance and all remained to partake of the buffet supper served at the close of the session.

### MORRIS COUNTY.

Marcus A. Curry, M. D., Reporter.

A special meeting of the Morris County Medical Society was held at "Day's Colonial", Morristown, on the evening of Tuesday, February 15, President Plume presiding. About 50 were present, all members with the exception of 1 or 2 guests.

Preliminary to the main feature of the even-



ing, Dr. Samuel B. English, Superintendent of the State Sanatorium for Tuberculous Diseases, at Glen Gardner, gave a short talk, graphically describing the manner in which funds, made available by the State Legislature in 1912, had been used for extension service by the institution at Glen Gardner, as well as for a number of other tuberculosis clinics, and tracing the development of this work up to the present. Dr. English expressed the opinion that in any work on tuberculosis the county should be the unit. There are still a number of counties in the state in which little or no clinic work is being done; some of these counties have county tuberculosis hospitals and some do not; some of the county hospitals are not equipped from an administrative standpoint to take on tuberculosis clinic work. Such clinics are not for treatment, merely for examination and diagnosis. There was originally some suspicion that perhaps these clinics might be used as an entering wedge for state examinations; but that has faded away and where they are established they are meeting with the support of all authorities and agencies interested in tuberculosis. After patients are examined the doctor is advised as to the findings and as to any suggestions that have been made and the patients are not encouraged to come back to the clinics repeatedly unless accompanied by their physicians. Without doubt, these clinics are of great advantage both to the medical profession and the patients. Two men are employed full time, one in North Jersey and one in South Jersey, and their reports go back to the physicians. They work also in coöperation with the Tuberculosis Association, and the follow-up work is done by the county tuberculosis association. Dr. English thinks the high death rate in Morris County from tuberculosis may be due to the fact that this region is looked upon as a healthy community and probably many people come here from New York, Newark and congested places because they do have tuberculosis. They live here long enough to establish residence and their deaths are then recorded to the county.

It is most desirable that tuberculosis clinics, or chest clinics, should be established in every county in the state in connection with Glen Gardner, and run through the physicians. Dr. English thought it would probably be best if all the counties ran their own clinics in connection with their own institutions. With the approval of this county medical society, he would like to suggest to the Morris County Tuberculosis Association that clinics be established in this county. Letters received from time to time from associations, clubs and civic bodies have asked if clinics could not be established in this county. Dr. English said they would be glad to establish these clinics whenever the proposition met with the formal approval of the medical profession.

Dr. Abell said the idea of the association was to establish the clinic in Dover; they feel that the tuberculosis work in Morristown is well cared for at Morristown Memorial Hospital, and there has been a special appeal from Dover. Therefore, with the endorsement of the Morris County Medical Society, they should like to establish the clinic in Dover in the near future.

President Plume explained that as this was a special meeting the matter would have to lay over until the next regular meeting. He then introduced the speaker of the evening, Dr. Emil Goetsch, Attending Surgeon to the Long Island College Hospital, whose subject was "Some Aspects of Goiter".

Dr. Goetsch talked extemporaneously for about an hour and a half, covering his subject with graphic detail as to etiology, symptoms, medical and surgical treatment.

Goiter, he reminded his audience, comes from an insufficient amount of iodine being delivered to the individual. Some need more iodine than others, just as some need more food; but why one child in a family should not get enough iodine in food and water is a question. Goiter is prevalent in Cleveland and the Pacific Northwest in this country and is not supposed to be very common in the eastern Atlantic States. The simple colloid is the most common type. In the hyperthyroid condition there are 2 main groups: adenomatous goiter and exophthalmic goiter. It is well to remember that the symptoms of adenomatous goiter and tuberculosis are similar.

Adenomatous goiter is a purely surgical condition; it should either be left alone or operated on. If treated surgically, the cure is permanent.

Exophthalmic goiter is more serious; it is more dangerous and more damaging. Recovery takes longer, but the results are so good that one does not have to apologize for them. Treatment in the early stages combines rest with medication. The speaker said that in mild early cases he had tried x-rays preoperatively with some good results; but the patient must be young and the x-ray man must know his treatment or damage may be done. X-ray therapy does not produce good results in advance cases and will only make them more difficult finally for the surgeon. The doctor had not seen good results from x-rays in any typical exophthalmic goiter.

There is as yet no specific drug for hyperthyroidism. Rest in bed is the best medicine of all; not fast bed rest but a great deal of rest. Dr. Goetsch does not use digitalis in these cases as he believes that the only way to control tachycardia is to reduce the hyperthyroidism. Other medicines which the symptoms require, it is all right to give. If medication proves ineffective the only recourse is thyroidectomy.

Iodine is used for exophthalmic goiter only in preparation for surgery, because it will do great harm if given in any other way. Tremendous harm all over the world is being done today by giving iodine to these patients. The reason why Plummer's treatment is not successful is that it has not been followed as he directed. For adenomatous goiter, surgery is the only treatment. Exophthalmic goiter may be treated medically in the early stages; for cases a little more advanced, with fullness of the gland, mostly in girls who are somewhat nervous, a few x-ray treatment will sometimes help. When these cases get beyond control by medical treatment, iodine is important as a preparatory measure for operation, but it is not curative.

When properly controlled, there is no operation in surgery, bar none, that is as safe as thyroidectomy; none that can be pointed to with as good results.

Insanity is not a complication of and not a final outcome of hyperthyroidism; the percentage ratio is that of the general population. Patients become nervous and one will be surprised at the number of apparent wrecks that can be saved with surgery. The risk is not so great that it can not be taken, and a reasonably favorable prognosis may be assumed.

The discussion of Dr. Goetsch's subject was extensive; those who took part were Drs. Glazebrook, Lathrope, Haven, Flagge, F. Grendon Reed, Julia Mutchler, McMahon and Beaver.

The speaker willingly and readily answered all questions.

The many complimentary comments on Dr. Goetsch's address crystalized in a rising vote of thanks for his highly elucidating discourse and the ease and clarity of its delivery.

Refreshments were served and a very pleasant social period was enjoyed with a unanimous feeling that the special meeting had been well planned and the program ably carried out.

#### SALEM COUNTY.

William H. James, M.D., Reporter

The regular meeting of the Salem County Medical Society was held at the Memorial Hospital, Salem, New Jersey, on Wednesday afternoon, February 9, at 2 o'clock.

There were no communications, nor any new members up for election so the business program was soon disposed of, and the Society had the pleasure of hearing Dr. Henry O. Reik, Editor of the State Medical Journal, who chose for his subject "Periodic Health Examinations". Before the doctor showed the moving picture film, he gave very complete directions as to how the examination should be conducted and stated that if the examination was done in the proper way the person who made the examination should be compensated for his work. The picture brought out very plainly the mode of examination, step by step, and it was greatly enjoyed by everyone present.

The next paper was read by Dr. P. S. Pelouze, of Jefferson Medical College, on "Treatment of Gonorrhea". He said that 85% of the males in large cities had at one time or another had gonorrhea, to say nothing of what happened in the country. The treatment depended, for its success, on the conduct of the patient, as well as on medication, for if the patient refused to follow the advice of the doctor, his chances of recovery were reduced in proportion to his lack of cooperation.

The paper was illustrated by lantern slides and Dr. Pelouze was given a rising vote of thanks.

This was the largest meeting in the history of the Society, 16 regular members being present. The following were present as delegates from other counties: Cumberland County—Drs. Glendon, Moore, Simpkins and Myatt, of Bridgeton; Dr. Lore, of Cedarville, and Dr. Day, of Port Morris. Camden County—Dr. Alexander MacAlister, and from Gloucester County—Dr. Samuel Ashcraft, of Mullica Hill.

At this meeting a Ladies' Auxiliary to the Salem Medical Society was organized by Dr. Reik with 14 charter members, and the following officers were duly elected: President, Mrs. C. L. Fleming, Pennsgrove; First Vice-President, Mrs. John M. Summerill, Pennsgrove; Second Vice-President, Mrs. William H. James, Pennsville; Secretary, Mrs. R. M. A. Davis, Salem; Treasurer, Mrs. F. L. Perry, Woodstown.

At the conclusion of the meeting, supper was served at Johnson Hotel. The next meeting will be held April 13, at 2 p. m., at the hospital.

#### SOMERSET COUNTY.

Lancelot Ely, M.D., Reporter.

The Somerset County Medical Society held its regular meeting on February 10, in the High School Auditorium, Somerville. After the usual routine business, Dr. Henry O. Reik, our State Journal editor, brought before the members several points of interest. He urged the doctors to keep in touch with the Journal, and emphasized

the importance of many legislative matters of interest to medical men. He especially urged that the doctors stand back of vaccinating dogs against rabies. He also presented the film, "Periodic Health Examination", and spoke in detail of the importance of the family physician thoroughly equipping himself for such work, rather than letting the work be controlled by others than those in the profession. A vote of thanks was extended Dr. Reik for his talk, which was interesting and helpful.

#### UNION COUNTY.

##### Westfield Medical Society.

Frederick A. Kinch, Secretary.

The 179th regular meeting of this society was held February 10, 1927, at the home of the Secretary. Dr. R. G. Savage, vice-president, presided, in the absence of Dr. J. B. Harrison, president, who is spending the winter in the south.

Dr. C. T. Decker, of the Ambulance Committee, reported a satisfactory settlement of the question of the use of the ambulance.

Drs. Leggett and Salvati, a special committee to purchase a canvass stretcher for the ambulance, reported that the purchase had been made, the stretcher presented to the ambulance, and the bearers had been instructed in its use.

Further suggestions to promote the efficiency of the vehicle were made which in the near future will be carried out.

Dr. Savage was essayist, but, instead of presenting a written paper, he gave the histories of 2 very interesting and unusual cases that had come under his care; the discussion that followed showed the interest of the members.

After the business of the evening was concluded a social hour was enjoyed and refreshments were served. A vote of thanks was extended to Dr. and Mrs. Kinch for their hospitality and the meeting adjourned.

##### Summit Medical Society.

William J. Lamson, M. D., Secretary.

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines on Wednesday, February 23, 1927, at 8:30 p. m., with Dr. Morris in the chair, and Dr. Eason as host.

Present were: Drs. Bensley, Bowles, Burritt, Byington, Clark, Disbrow, Eason, Falvelle, Hallock, Krauss, Lamson, Meigh, Milligan, Moister, Morris, Prout, Reiter, Smalley, Tator and Tidack.

Minutes were read and approved.

The paper of the evening was read by Dr. G. Allen Robinson, of New York, the subject being "Radium". A moving picture was shown illustrating the properties of radium, and its effects on certain pathologic conditions. In discussing its general therapeutic status the speaker noted that radium is of value preoperatively, making tumor removal more thorough and complete; warts, angiomas and superficial malignant growths respond well to its application, as do certain internal growths which can be reached by the radium needles.

At the close of the meeting refreshments were served.



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## A GENERAL CONSIDERATION OF THE NUTRITION OF CHILDREN.

ALVIN E. SIEGEL, M. D.,

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There is no phase of medical practice more important than preventive medicine. The well-nourished child has a greater resistance to infection. It follows, therefore, that proper nutrition is a valuable prophylactic measure in addition to the immunization procedures that are attaining popular use.

Proper nutrition is not only of the greatest importance in preventing infection but in those instances where the invading horde has gained a foot-hold, the state of nutrition of the young patient is of the utmost significance in deciding the outcome of the battle. The pediatricist usually sees only the severer grades of malnutrition, except in the minority of his cases where he serves as a general practitioner for the children of the family. Nutritional care of the majority of children in our communities, therefore, devolves upon the so-called general practitioner or family doctor. This valuable member of the medical family bears the onus of bringing the children under his care into the very best state of nutrition.

Consideration of the nourishment of children should be divided according to age periods. In such a grouping the infant first claims our attention. In the new-born and the premature, the nutritional needs are primarily fluid

and carbohydrate. A very interesting phenomenon, often observed in new-born infants whose mothers develop lactation slowly, is manifested by an elevated temperature. The addition of a sufficient quantity of fluid, either in supplementing the maternal nursing or in temporarily replacing it, gives conclusive proof that this febrile reaction is the result of too little fluid. Following this change the temperature returns to normal in 24-48 hours and by this time lactation has developed to a point where the child can take the breast without manifesting any disturbance. The fluid which is used should be of relatively high carbohydrate content and low fat and proteid content. This relationship can readily be obtained in condensed milk or some of the other proprietary artificial foods.

Except in the foregoing condition and in certain other rare cases, maternal feeding should be the diet of all young infants. There are, however, instances in which the mother is suffering from an acute infection or some constitutional disease, where the quantity of milk is deficient or where the qualitative tests may show abnormal percentages of fat, carbohydrate or proteid, rendering it unfit for the infant's use. In other rare instances, in highly neurotic mothers with a fairly normal qualitative content and supply, it may be necessary to desist from maternal nursing because of inability of the child to tolerate the mother's milk. One should always be slow to discontinue maternal feeding without having first tried in every way to restore the quantity and quality of the mother's milk or to compensate for its abnormality by using supplemental or complementary artificial feedings.

Very often difficulty arises because of ex-

cessive fat content of the mother's milk which may be brought about by her overzealousness in taking fat-producing foods with the hope of improving her child's nutrition. Restoration of her diet to normal may be all that is necessary to reduce the concentration to the digestible point. Where the high fat is not due to excessive intake of fat-producing foods by the mother, it may be possible by limiting the feeding time and by using a low fat fluid as a supplemental food, to accomplish the continuation of partial maternal nursing. It must be stated, however, that procedures of this sort are not always successful, as we may be embarrassed by the preference of the baby for the artificial food. When all efforts in the attempt to preserve maternal feeding have failed, one may conscientiously turn to complete artificial feeding.

Difficulty may be encountered in giving direct maternal feeding to premature babies or to small or weak full term babies. In such instances, use of the breast pump to procure the maternal supply will allow of its administration by pipet, the Breck feeder, or nursing bottle. In some instances use of the nipple shield will facilitate what is essentially a direct maternal nursing. In babies of this type much can be accomplished by a little stimulation, such as drop doses of whiskey or of panopepton prior to feeding.

For artificial feeding of infants no absolute rules can be laid down. The preferred type of artificial diet is a modification of cow's milk. This statement, of course, is applicable to communities in which there is a supervised milk supply and preferably a certified milk supply. In planning the artificial food, simplicity should be the keynote and, while the criteria of dilutions as regards age must be used as the guide, the entire success of the artificial food depends upon its adaptation to the individual requirements. The slogan should be—"Adapt a food to the child and do not try to adapt the child to a food."

The methods for modifying cow's milk are numerous. It is undoubtedly true that the majority of children will thrive on simple dilutions of whole milk fortified by addition of carbohydrate in one form or another. Recommendation is made that a simple dilution be

tried first, taking into account the child's age, weight and general caloric requirements. Success is much more likely to follow the use of a modification somewhat below the standard for the age and weight of the patient. If this is well tolerated, concentration may be increased up to the requirements. As a rule, in beginning a milk formula for children less than 3 months of age, much better results will follow the use of a low fat, moderate proteid and high carbohydrate combination. The fat should then be increased by frequent small additions until the fat content bears to the proteid content the ratio of 3:1. In order to make this procedure possible it is necessary to use top milk-skim milk methods. Some children will be found who do not thrive on ordinary milk-water combinations and in some instances predigestion of the formula brings about the desired increase in weight and evidence of complete digestion as recorded in the stool. A very reliable predigestive agent is peptogenic powder which pancreatinizes the milk. This is an old method, often forgotten. A newer method of predigestion is that of acidulation as described by Marriott. Many babies who will not show progress on anything else, will thrive on this preparation, which is essentially an artificial lactic acid or butter milk. Some babies, however, will not tolerate it. Acidulation may also be accomplished by use of lemon juice, orange juice or vinegar. In our clinic at the Methodist Hospital we have been very successful in the use of boiled butter-skim milk dilutions for babies who tolerate fat poorly. This procedure has been used for 5 or 6 years with excellent results, but the cases must be selected with care. Roughly speaking, this preparation is indicated in children who are failing to gain, who are constipated and whose stools are of putty-like color and consistency.

The proteid, in our experience, has been less frequently the cause of trouble than the fat. The principal abnormality as regards proteid tolerance is seen in certain children who have intolerance to milk proteid, or the so-called allergic phenomenon. This intolerance may exist for mother's milk as well as for cow's milk and may cause eczema or bronchial asthma or both. Simple proteid indigestion is not common. Presence of curd in the stool



should not be regarded with too much concern. Dr. Thompson S. Westcott used to warn us against developing what he termed "curdophobia". The baby may not break up all of the proteid as shown by the presence of curds in the stool but still it may not be having a proteid indigestion. Modifications of cow's milk, such as acidulation, alter the character of the curd and while this form of modification is used for other reasons, the alteration of the curd may be beneficial. Another manner in which the proteid curd is changed is by the use of gelatin water. This forms a colloidal proteid and in certain cases marked improvement follows its use. This change is especially indicated in persistent regurgitation in which there is no evidence of organic pyloric stenosis.

The carbohydrate of the mixture may give rise to disturbances. The tendency of physicians to use proprietary carbohydrate combinations is sometimes the beginning of trouble. The majority of bottle-fed babies will do very well when additional carbohydrate is added in the form of granulated sugar or, in those cases with a tendency to flatus, of corn syrup. Some children will require special forms of sugar. Sugar of milk sometimes answers the need. In other cases carbohydrate will be tolerated only in the form of saccharose, dextrose or maltose, or a combination of the latter two. Sometimes the best type of carbohydrate to be used can be determined only by trying the various forms. Most of the proprietary infant foods are predominatingly one of the forms of carbohydrate. This does not apply, of course, to the powdered or synthetic milks. These proprietary preparations should not be recommended without consideration. With a food supply of this sort available, the parent is apt to drift away from supervision of the medical adviser and attempt to fill the child's nutritional needs alone with the guidance of formulas suggested by the manufacturer. As a result, many cases of rickets or scurvy or varying degrees of malnutrition develop. With these preparations we have to deal again with the attempt to adapt the baby to a food rather than adapting a food to the baby.

Whether the infant is breast fed or bottle fed, with increased activity and growth and the consequent increased nutritional demands,

toward the end of the first year it becomes necessary to add other items of diet. Even so short a time as a decade and a half ago such a suggestion would have given rise to considerable criticism, but during this period of time the profession, as well as mothers, have learned the value of this variation from the older procedure. About the fifth or sixth month a small quantity of well cooked cereal should be given and if the child tolerates this, a small well baked potato may be added. After this combination has proved acceptable for 3 or 4 weeks, well cooked, finely comminuted vegetables, such as carrots, beets, spinach and squash, may be added. Subsequently, cooked fruits and egg may be included. The egg is added to the cereal meal which is usually given in the morning, and the cooked fruit as a dessert to the potato and vegetable meal about noon. A little later a light meal may be given in the later afternoon, such as milk-toast, purée of vegetable soup, gelatin, junket, custard and the like. In this way, by the time the child is a year old, consideration having been given to the intervals during which dentition has caused a hiatus in the dietary increases, it should be no longer dependent on milk but should be fully established on table food. Subsequent to this time, during the second year of life, increases in the diet are more in the way of quantity per meal than in addition of other food elements. During this period, however, it is well to add vegetables of the pea and bean family to the list so that the nitrogenous element will be amply supplied. This group of vegetables takes the place of meat, although it is possible to give finely shredded chicken or well cooked fresh fish during the second year. During the third year, an occasional lamb chop may be included but the use of red meats habitually is not advocated, nor is pork suggested, because of the danger of tape-worm infestation, although the use of well grilled bacon cannot be objected to even prior to the twelfth month.

By the ninth month the baby should be able to take undiluted cow's milk, but after the first milestone has been passed and the child is well established on table food, milk should be an incident of the diet rather than a necessity. In children who take milk from

the bottle, this habit should be broken not later than the eighteenth month. Many cases of anorexia, in which the mother states that the child will not take table food, have as their basis prolonged feeding from the bottle. Incidentally, these children are always poorly disciplined and prone to infections of the upper respiratory tract. The poor nutritional intake is evidenced by the lack of subcutaneous fatty tissue and by flabby musculature, and a marked secondary anemia may be present. Much the same picture may result from forced feeding of milk from the cup or glass. The many health organizations have spread throughout this country misleading propaganda regarding the food value of milk. There is no gainsaying the value of milk as an adjunct to the diet, but where its use prevents the intake of well balanced, well mixed table diet, the milk should be discontinued. It is interesting to observe the increase in appetite and the improvement in general nutritional condition resulting from such a procedure. The greatest difficulty lies in convincing the mother of the great error of the routine and of the tremendous improvement that will follow its discontinuance. It is doubly difficult because rather stern disregard of the child's desires may be necessary in order to accomplish the change.

The consideration of nutrition in children would not be complete without mentioning the undernourished children, over 2 years of age, that are so frequently seen. They represent a great problem, and recognition of the underlying factors is essential to successful treatment. A large group of undernourished children consists of those with upper-respiratory obstructions and infections. The child with enlarged tonsils and adenoids, with a chronic sinusitis or posterior nasal catarrh is prone to have little appetite. The malnutrition is the result of poor nutritional intake with the added results of the chronic infection. Another common type of undernourished child is the youngster of the highly nervous group. Often the poor intake of food is the result of inability to remain quiescent at the table sufficiently long to consume a meal. Poor management and poor discipline are very important factors. In others of the nervous type, poor nutritional intake results from the great desire of the

mother to have the child eat, with the result that she is nagging the child during the meal, first to take this and then to take that, so that in reaction the child is unable to take anything. In these nervous children there is also a tendency to overactivity with the result that what little nutrition they take is consumed in exercise and there is no opportunity to store up. In all of this group where there is excessive physical activity, nutrition can be built up only by immobilizing the child. Absolute rest in bed not only lessens the burning up of nutritional elements by exercise, but also offsets the excessive nervous tendency so that there is improvement in appetite and surprising increase in weight followed by other evidences of well-being.

Mention has been made of loss of appetite in prolonged bottle feeding and in excessive milk intake. Where these conditions exist and are the sole causative factors, correction is easy.

One very frequent cause of anorexia and malnutrition is excessive use of candy and sweets. The habit of so many parents, often those who can ill afford it, to give the children small coins which they invest in cheap candies and cakes is harmful and not a kindness. The same applies also to the habitual or excessive use of better grades of confections. In these youngsters, restriction of sweets is followed by development of the natural appetite with nutritional improvement.

In planning the diet for an undernourished child, whether it be infant or older, due consideration must be given to the caloric value of the daily food intake. The standards required per kilogram or per pound of body weight for the normal child will not produce results in the malnourished, who require a much greater nutritional intake. Not only must they carry on the daily business of activity and function (basal metabolism), but if they are to gain, they must have accessible an additional supply over the basal metabolic needs so that the stock of the depleted storehouse may be built up. In order to do this, at least double the daily caloric requirements must be furnished, and this is accomplished by concentrated feeding. In infants we can use the lactic acid milk of Marriott, boiled butter mix-



tures, gruel feedings, malt soup and other similar preparations. In older children additions are made in preparation of the food, such as using cream sauces and boiled butter for increased fat, and various forms of sugar, so that the caloric value per unit of food is doubled. Heiman (Arch. Pediat., 43:493, 1926), in a very thorough presentation gives the results of concentrated feeding in children over 1 year of age. While these results were by no means universal he was able to improve the nutritional status of many children who did not thrive on ordinary dietetic regimens. The work of Pirquet, in Vienna, during and subsequent to the war was a wonderful demonstration of the application of scientific dietetics in feeding large numbers of children greatly below normal, nutritionally. While this great undertaking involved large groups, nevertheless the height, weight and other necessary data of each child were noted and the estimated food requirements for the individual prescribed. In other words, each child was treated as an individual case in spite of the necessity for preparing and distributing the food on a large scale. Without a doubt, the great success of this undertaking was due to this fact. In our own nutritional work, if we consider the needs of the individual child and adapt a feeding to suit his requirements, success is almost assured. The great pitfall in dietetic work is trying to adapt the patient to some routine feeding procedure.

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## **TYPHOID FEVER AND ITS INFLUENCE ON COMMUNITIES IN THE PAST.**

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CLARENCE L. ANDREWS, M. D.,

Atlantic City, N. J.

In presenting to you, as members of the Medical Staff of the Atlantic City Hospital, the report of our service for the months of August, September and October, just finished, have we completed the task which was assigned to us as chiefs for those 3 months, by submitting a true and accurate account of the cases admitted to our service, and by explaining their respective final disposition and result, or is there a further obligation or duty we

owe you, as members of a group of which we form a part, to try to add our bit toward attempting to make each of us treat similar diseases in the future more accurately, as well as to endeavor to try to help mankind as a whole?

Concretely, our task has ended when we comply with the rules outlined for a routine report, but ethically and morally there is a higher and nobler duty which advancing medicine demands that we fulfill.

Then what are these duties we as chiefs should perform and just in what practical way may they be carried out?

We are living in an age when life presents such a kaleidoscopic and complex picture to the average mind that it matters not what our vantage as individuals or groups may be, we are wholly unable to view the many and varied changes which occur almost immediately around us. In the olden days life was so simple that men of philosophy viewed all forms of phenomena as a whole, and stupid was he who could not explain the mysteries of almost any realm; then came scientific advancement and invention until today no one thinks of delving into more than a single problem at a time. Moreover, it has been by combining these unlike avenues of thought so as to point toward a single goal that we have built up the complex communities in which we live.

Just so it is with advancing medicine. We are rapidly passing from the time when the physician was looked upon as knowing all the secrets of the healing art to a time when he centers his efforts on a few correlated facts and attempts to learn them well. Therefore, in subdividing the whole subject of medicine into its component parts, one wonders whether a tie has not been severed which formerly connected the whole. Today, perhaps more than at any previous time in the history of medicine, it has become necessary to pool our thoughts, as it were, in order to try to keep us as individuals from becoming overspecialized. Furthermore, one cannot select a specialty and become proficient in it except by obeying one of 2 fundamental medical laws: (1) He must obtain through study such a thorough knowledge of anatomy, path-

ology, physiology and symptoms of general disease as to enable him at all times to view his special case through those fundamental avenues; or (2) he must so coöperate with those devoting time to the broader fields that the information which he himself has not had time nor opportunity to secure will be available to him through them. Obviously, therefore, as we branch out into the various distinctive groups, it becomes more and more necessary for each special department to give back to those in other medical fields a brief résumé of current changes. In this way we as a staff should do better work not only because we are a combination of specialists working as a unit, but also because the pooling of our respective knowledge and experience enables each one concerned to review and enjoy those changes with which he has not had the opportunity nor time to acquaint himself. Departing, therefore, somewhat from the classical report submitted by us in the past, we wish to elaborate on some of the chief features of our service.

Chagrined as medical men that in this day of scientific advancement we have to select for our subject that disease which within itself reflects discredit on the sanitary code of any community in which it occurs, we feel justified, nevertheless, in doing so inasmuch as it has occupied the major portion of our service and is, besides, a subject of great hygienic and economic importance, concerning which you doubtless have frequent occasion for comment. Therefore, we wish to talk to you about typhoid fever and its influence upon communities in the past.

#### HISTORY.

As far back as medical history extends we find descriptions of a disease which we now believe to have been typhoid. The condition is simply spoken of as fever with delirium. Even in the writings of masters, such as Hippocrates and Galen, no sharp clinical line is drawn, but typhoid, typhus, relapsing and malarial fevers, as well as the plague, are grouped under one common heading as being varieties of the same disease. However, as one traces the historical accounts of various epidemics one feels rather certain that typhoid has existed for all time. The "plague",

which abated after improvement of the water supply in ancient Rome, most writers now believe to have been typhoid, as no other disease fits in so well with the description given.

Typhoid was originally thought to be a disease of the intestines with secondary changes in the body itself, or vice versa. The first true clinical description occurring in the literature was by Willis, in 1643. He described a disease which occurred among the soldiers and spoke of their suffering with headache, nose bleed, delirium, hemorrhage of the bowels and distention—a very clear-cut idea of typhoid as we see it. Willis also reported the first account of a typhoid perforation when he says one of these soldiers suffered with pain and torment in the abdomen with distention. He stated that the disease was slow of contagion, but ultimately attacked the entire household.

Strother, of England, was the first to add further data to the above description by mentioning enlargement of the spleen. He gave to this picture the name of slow fever, because of the length of time necessary for recovery. This term was widely used in the South till recent years.

France made the first real advancement toward solving the disease through extensive study of pathologic anatomy. This must have been reflected in England, as John Hunter had several good specimens of typhoid ulcers in his collection, but writers fail to say whether he thoroughly understood their true nature.

Louis, of France, described the lesions very accurately, in 1829, and suggested the name of typhoid fever for the first time. However, even at this late date it was constantly confused with typhus fever, which was more or less prevalent throughout Europe.

To America belongs the honor of being the first country to recognize typhoid and typhus as 2 distinct and separate diseases. This discovery was published by Gehard, of Philadelphia, who had been a student of Louis in France.

#### MODES OF INFECTION.

Modes of infection also baffled early clinicians although quite far back in history, as pointed out previously, one finds suspicion placed upon the intestines, and the probable



cause was ascribed to decomposition and putrefaction of their contents.

Murchenson first suspected the feces as the agent of infection but thought it did not occur till after putrefaction had taken place. He believed, moreover, that these putrefied stools were carried by the water to infect a second case. Budd, of England, in 1860, further incriminated the feces as being the source of infection and said that by disinfecting stools one could arrest the spread of the disease. How nearly indeed this clear observer came to saying disease was due to a germ. He also further emphasized this fact by saying that every new case came from a previous one. The finding of *Bacillus typhosus*, by Eberth, in 1880, and the discovery of the agglutination test by Pfeiffer and Grünbaum in 1895, which was later popularized by Widal, put typhoid on a scientific basis.

Now, with the discovery of the typhoid bacillus by Eberth, and a knowledge of the pathologic lesions acquired by the French, coupled with the certainty of the feces as the source of the infection, was the handling of typhoid much simplified and is it easy to diagnose today? That does not appear to be the case. Perhaps no disease is more widely spread than typhoid, and so varied in its nature from time to time, or even at the same time. It occurs wherever man is found, from the tropics to the frigid zone. While the germ may live for a time in water and various places if left alone, it is wholly and entirely dependent upon man, so far as we know, to carry on. Unlike diseases of the true epidemic type, such as influenza which has rapidly passed around the globe, typhoid has to be literally carried by man from place to place. Notwithstanding this slow epidemic characteristic, however, owing to the fact that typhoid bacilli may live in the urinary tract for an indefinite period of time, a single individual so infected may spread the disease around the world.

Typhoid has been the bane of all medical men in past wars and has been directly responsible for more deaths and greater expenditure of money than gun shots themselves. During the World War, for the first time in medical history, typhoid was held in abeyance

due, as you know, to the combined and concerted attempt at prophylaxis by the use of the typhoid serobacterin in all soldiers of all the conflicting armies. However, wonderful and far reaching as was this demonstration of individual and public welfare, there is still such laxity on part of both the profession and laity that many communities stand the same chances of sudden and serious outbreaks as in ancient times. As pointed out by that great teacher, Sir William Osler, although hospital, doctor and nursing care is provided for bringing the typhoid patient back into active life, the community from which he came or the one to which he expects to return is at the same time treated almost with indifference. There is no disease which offers such wonderful promise prophylactically, and none which presents such potentially far reaching possibilities in a community, once it occurs, all depending upon the handling of the individual case and its source.

#### CHARACTERISTICS OF THE DISEASE.

Great teachers have said that he who understands typhoid and its sequels understands the science of modern medicine. This is really true, as no disease is so varied in its form, so mystifying in its behavior and so uncertain in its progress, even to the very end. One feels justified, therefore, in stating that it is atypical when typical, is most serious when getting better, and is a potential menace to the community after the individual is cured.

#### MODE OF ONSET.

This may be extremely variable, even during a given outbreak, and throw one entirely off his guard. It may occur suddenly, with convulsions, particularly in children, also in individuals who 24 hours previously were quite well. Typhoid may begin with marked pulmonary symptoms simulating influenza, pneumonia or bronchitis with aching pains, as was found in many of our cases, and be treated as such, to be diagnosed as typhoid only after symptoms fail to clear up in the usual way. It may begin by marked gastro-intestinal upset and be mistaken for food poisoning, as was shown by some private cases in the city. It may begin with symptoms of acute nephritis, with blood and albumin in the urine, without

other symptoms of typhoid. Finally, it may occur in individuals without any symptoms at all until some complication arises or some examinations are made by which it is revealed.

#### TYPES OF LABORATORY FINDINGS.

There may be very grave and severe symptoms clinically with no demonstrable laboratory evidence of the organism in the blood, feces, or urine, and no positive Widal. On the other hand, the urine, blood and feces may be full of organisms, while there is little evidence clinically of a severe infection. It is, therefore, patent that in no other disease is the clinician put so much on his mettle as to a correct original diagnosis, especially in a case encountered in an unsuspected area.

Taking the many and various groups as reported in the literature of the past, however, the great majority of cases have shown headache, loss of appetite, diarrhea, abdominal pain and general lassitude as their chief symptoms, in the order given. It is by looking for these classical symptoms and forgetting the atypical, as before stated, that so many are misled and say the disease is not true to form. Such is not the case; it depends on just where the organisms center their attack.

The infection, while undoubtedly entering the alimentary tract as food or drink in a common way, must enter the body from there through different channels, a fact which might help to explain the great variety of symptoms found in individuals in the same family during the same outbreak. Whether the organism enters sometimes directly into the blood stream, at other times through the lymphatics and at still others by direct penetration of tissue areas is not known. There is some evidence that the suddenness and severity of onset may depend on the number of organisms the individual takes into his system at the time of infection.

#### HOW TYPHOID INFECTION DIFFERS FROM OTHER TYPES OF INFECTIONS.

Wholly unlike any other type of infection we know of, there may be active bacilli in the urine and feces after all symptoms of disease have subsided. A second marked difference lies in the great tendency to relapse after the fever has almost run its course, when positive

blood cultures and all the previous symptoms may be repeated as if no immunity had been established by the first attack, although one who completely recovers is supposed to be protected for life.

Therefore, just when does immunity become established and upon what does it depend? This question seems not to have been answered. Typhoid obeys no known law. As before stated, every outbreak may be different as to symptoms, severity and death rate. The only rule to follow is not to set one's mind on any group of symptoms, but to remember that typhoid is the most common of any of the long drawn out fevers. Do a leukocyte count, a Widal and blood culture in any case lasting longer than 8 days, and continue this search till something is found out. It will come sooner or later.

#### CHARACTERISTICS OF OUR SERVICE.

During our service the following characteristics prevailed:

(1) None of our cases were seen till from 2 to 3 weeks after onset, which made the temperature chart resemble any septic infection.

(2) Irrespective of the type of onset—whether with grippy sensations, chills or sudden gastro-intestinal disorder—by the time they reached us the outstanding symptoms in these cases were headache, weakness and loss of appetite.

(3) Only 4 of our series gave positive blood cultures and in those who gave positive Widal's the reaction came very late. There were 18 in this group. One ran a typical typhoid course without any other positive evidence. All cases showed at some time enlarged spleens and some enlargement of liver. Three showed unquestionable rose spots, others suggestive, some none.

(4) Of the 22 very ill patients, only one died and that case was complicated by pneumonia.

(5) There were 2 hemorrhage cases.

#### CONCLUSIONS.

If one does not fix his mind too strongly upon some other disease, whatever the onset of typhoid may be like, it sooner or later takes on the typhoid characteristics.

An early leukocyte count should be done, as



there are only 3 other diseases one has to consider as causing a leukopenia—malaria, influenza and tuberculosis. Malaria is most improbable in this section, influenza runs a relatively short course, and tuberculosis will give some early evidence if the temperature is high. One Widal or culture, if negative, should not be regarded as final but the Widal, urine and fecal examinations should be repeated till found to be positive. If all tests are negative throughout, one should hesitate to make a diagnosis of typhoid. Some positive test occurred at some time during the course of the disease in all of our cases except one.

CONCERNING THE SGAMBATI URINE TEST IN PERITONITIS.

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In 1920, Sgambati<sup>(1)</sup> described a urine reaction which he believed to be applicable to the diagnosis of peritonitis. The test is applied as follows: To 6-8 c.c. *albumin-free* urine in a test-tube, 2 or 3 c.c. pure nitric acid are added *without mixing*. If the test is positive (first phase) a bluish-gray color appears *at the point of contact* of the urine and acid. The second phase of the reaction is elicited by adding 2 or 3 c.c. chloroform, when, in positive cases, the color becomes ruby red and diffuses throughout the tube on standing. Sgambati considered the reaction due to oxidation products of chromogens and pathognomonic of peritonitis, the intensity of the color being an index of the severity of the disease. Solieri<sup>(2)</sup>, however, while agreeing with this explanation, considered the chromogens as derived from the cells lining the peritoneal cavity, the intensity of the color, therefore, being an index of cellular reaction and, hence, of favorable import. Marcialis<sup>(3)</sup> regards the first phase of the reaction as entirely due to indican and without significance. The reaction has been more extensively applied abroad than in this country, and the reports of its value are varying.

Deutsch and Graham<sup>(4)</sup> in 22 cases found it of no value in the diagnosis of peritonitis, while Giordano<sup>(5)</sup> in a study of 600 cases, found the second phase of the reaction of diagnostic value and an aid in following the progress of the disease. The most recent report is that of Dodds<sup>(6)</sup>, who applied the test to 177 children. His results indicate that the reaction is not specific for peritonitis, although, possibly as a coincidence, positive reactions occurred in every case of pneumococcus peritonitis while absent in 50% of cases of peritonitis secondary to appendicitis. Dodds considers the reaction due to a temporary metabolic disturbance analogous to that responsible for the appearance of acetone and indican. The value of any reaction proposed as an aid in the diagnosis of disease depends to no small extent upon its specificity; not merely upon how frequently it is to be obtained in the particular condition for the detection of which it was devised, but also how often it is encountered in the absence of such a condition. Obviously, a reaction promiscuously encountered, is of little diagnostic significance, while, on the other hand, the less frequently nonspecific reactions occur, the greater becomes the significance of positive reactions when encountered. The Sgambati reaction was therefore applied to a series of 571 albumin-free urines submitted for routine examination in these laboratories, in an endeavor to ascertain if positive reactions were to be found with undue frequency in the absence of peritonitis, and also, as opportunity offered, to determine the frequency with which it was encountered in the presence of peritonitis. The specimens were obtained from a variety of medical, surgical and gynecologic conditions unselected. Of 556 cases not having clinical or other evidence of peritonitis, negative reactions were found in 554. The 2 positive reactions occurred in a case of gastric ulcer with hemorrhage in which clinical or other evidence of peritonitis was not obtainable. This patient had repeated hemorrhages as a result of which he died. An autopsy could not be obtained. There were 15 cases of known peritonitis in addition to the cases noted above, in none of which a positive reaction was obtained.

We believe, with Marcialis, that the first phase of the reaction is probably influenced by the indican content of the urine and is of no particular significance. While the reaction does not appear to occur promiscuously, neither is it uniformly encountered in peritonitis, nor is it diagnostic of nor specific for this disease. It does not appear to be of sufficient value to warrant its addition to the usual methods of laboratory study employed in this condition.

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### HELIO THERAPY.

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When the Sage said, "There is nothing new under the sun", he uttered the truth. Many of us think of heliotherapy as a new invention or discovery; but it is nothing of the kind. The Bible refers to it on frequent occasions, and history shows that the ancients not only worshipped the great source of light, the sun, but also made use of it in the treatment of disease. Heroditus, Hippocrates and Phineas all advise sun baths. In 1777 we find Faure treating ulcers by means of the solar rays, and in the next century Halfelund used it in the treatment of rachitis. In 1840 the first solarium was built in Germany and in that year Ollier and Poncet published "The Treatment of Tuberculous Arthritis by Sunlight".

Of modern phototherapy, Finsen is the father. His experiments showed that the chemical rays of the sun were the pro-

motors of life and energy. Continuing his studies to the clinical side of medicine he showed its great effect on numerous skin diseases, especially lupus vulgarus. For this, in 1903, he received the Nobel Prize.

Bernhard, in 1902, treated a suppurating wound of the abdomen with sunlight and about the same time Rollier, of Lysein in the Alps, began the treatment of pulmonary and joint tuberculosis with sunlight and reported wonderful results. Numerous other investigators and clinicians used sunlight with great success. Lately, Alfred Hess and simultaneously some British investigators have demonstrated the wonderful aid that heliotherapy is in the treatment of rickets.

Light consists of electrons in motion causing magnetic wave lengths some of which are visible to the eye while others are invisible. When light is passed through a quartz prism it is split up into its component parts, the visible spectrum from red to violet, and at either end the invisible. At the red or upper end we find the infra-red rays, which are heat producing; and at the lower or violet end the invisible chemical rays, the ultraviolet and x-rays and the gamma rays of radium. That the invisible ultra-red rays are heat producing has been demonstrated by the immediate rise in temperature which occurs upon placing a thermometer in the spectrum above the visible rays; when the thermometer was placed in the region of the ultraviolet there was no rise in temperature.

The shorter the wave length the higher the frequency of the wave, is an axiom in physics. The waves below the visible violet are short and of high frequency, while the rays above the visible red are long and of low frequency. These latter rays finally spread out into the hertzian waves that are used in radio transmission.

Wave lengths are measured by a unit of measurement fixed by the International Union of Solar Research, called the angstrom unit, abbreviated A. U. This unit is one ten-millionth of a millimeter in length. The color of light in terms of A. U. are as follows:



Invisible Rays—

Infra Red .....above 7700 A. U.

Visible Rays—

Red .....7700-6200 A. U.

Yellow .....5900-5600 A. U.

Orange .....6200-5900 A. U.

Green .....5600-5300 A. U.

Blue .....5300-4300 A. U.

Violet .....4300-3900 A. U.

Invisible Rays—

Ultraviolet, near .....3900-3000 A. U.

middle .....3000-2000 A. U.

far .....below 2000 A. U.

X-ray and Radium from 8 A. U. down.

The physiologic effects of ultraviolet light are daily becoming known as the staffs of universities and medical colleges, as well as individual physicians, are devoting more time and attention to study of the subject.

The physiologic action of ultraviolet light is undoubtedly to a very large extent photochemical. The constituents of living cells, while for the greater part colorless and therefore quite transparent to visible light, are absorbers of ultraviolet radiations. It is therefore not at all surprising that these radiations may have a very powerful effect. In employing ultraviolet light to promote physiologic action, it must be remembered that all the laws of physics and photochemistry will be obeyed, so that the operator must be somewhat familiar with these in order to obtain and interpret his results.

Practically all incandescent solids, liquids and vapors emit ultraviolet radiations along with visible light and heat. However, in actual practice only a few substances have been found satisfactory as a source for ultraviolet radiations. The sun gives a high intensity for the long wave lengths, but emits absolutely no radiations shorter than 2930 A. U. None of the metallic arcs in glass emit radiations shorter than 3000 A. U., for glass is opaque to shorter wave lengths. The bare carbon arc produces a strong near ultraviolet (3970-3000 A. U.) and many weak and a few strong lines in the middle ultraviolet (3000-2000 A. U.). Frequently, carbons are impregnated with various elements and compounds, giving flame arcs. Of these,

the white flame arc, extremely rich in near ultraviolet radiation (3970-3000 A. U.) is the most widely used. As a general rule, impregnation increases the longer ultraviolet at the expense of the shorter wave lengths. The iron arc is extremely rich in lines in the ultraviolet to 2300 A. U.; the quartz mercury arc produces a number of powerful lines to 1845 A. U., the limit of transmission for quartz. The mercury arc is an economic source for ultraviolet light, 28% of the total radiation being in the ultraviolet.

As a rule, the shorter waved ultraviolet radiations are the ones most readily absorbed. Air is completely opaque to radiations shorter than 1850 A. U., the absorption being mostly due to oxygen. Pure water and chemically pure ethyl alcohol in thin layers are quite transparent to radiations as short as 2000 A. U.

Ordinary glass is opaque to radiations shorter than 3400 A. U. Certain optical glasses in very thin layers partially transmit as short wave lengths as 2650 A. U. The only known satisfactory solids for the transmission of ultraviolet light are transparent fluorite and quartz. The former transmits to 1200 A. U., but is very scarce, and cannot be worked. Transparent quartz in moderately thick layers transmits to 1840 A. U., but is at present unfortunately quite expensive, because of the temperature and skill required in working it.

Ultraviolet light, like visible light, may be reflected. However, there are very few good reflectors, because most reflection of the ultraviolet is accompanied by considerable absorption. Silver mirrors, excellent reflectors for the visible, are only moderately effective. Metallic silicon and aluminum are the two best reflectors of the ultraviolet at present known.

A direct accurate quantitative determination of the ultraviolet radiation is quite difficult, the methods employed using the thermopile, the bolometer, or the radiometer. For a comparative determination the photographic plate, selenium and other photoelectric cells, fluorescence and a large number of thoroughly studied photochemical reactions are available.

## PHYSIOLOGIC ACTION OF LIGHT.

All substances absorb ultraviolet energy to some extent. By absorption, a part of the radiant energy that enters a substance is removed and held back in the substance. The substance possesses more energy than formerly, so something must happen. The substance may merely be warmed, the ultraviolet being transformed into infra-red, or another form of energy may be produced, such as visible radiations in fluorescence, or chemical or electrical change.

Many hundreds of photochemical, i. e., light sensitive, reactions are known. These may generally be classified as reactions whose products have an increased energy content, or reactions catalyzed by light. By far the greater number of photochemical reactions are catalytic, and ultraviolet radiation, therefore, possesses many possibilities for it introduces uncontaminating catalysts.

The physiologic action of ultraviolet light is undoubtedly largely photochemical, so that only the light that is absorbed by the organism will have any effect. As the greater part of the constituents of living cells are colorless, and therefore absorb little or none of the visible light, but do absorb ultraviolet radiations, it is not surprising to find that as a rule these radiations have a very powerful effect.

Downes and Blunt (1877), from a study of the growth retardation of sunlight on bacteria, concluded that the action was not due to heat. Hertel (1905), by a quantitative examination of the physiologic effects of radiations of different wave lengths and same energy content on bacteria and paramacia, showed conclusively that the shorter the wave length the greater the lethal effect. Thiele and Wolf (1907) found that the destructive action of ultraviolet light on bacteria possessed a temperature coefficient; that whereas wave lengths longer than 3000 A. U. were ineffective at a temperature of 18°C., these same wave lengths were lethal at 35°C.

Henri (1912) has shown that when the organisms radiated were small, the entire protoplasm was affected, the reaction following the ordinary simple laws of photo-

chemistry. However, if the organisms were large, the effect was either confined to the surface, due to the very small penetration by the ultraviolet light, or, by a process of diffusion, scattered throughout the entire organisms, the process being similar to a complex photochemical reaction taking place at a strongly absorbing surface. The exact nature of the photochemical change produced in protoplasm is at present unknown; Hasselbalch (1909) found that lipoids were made more soluble by radiation by ultraviolet light, Schanz (1918) that proteins were made less soluble. Difference in wave lengths appears to make a marked difference in effect. Thus, radiation of wave length longer than 3200 A. U. has practically no effect on rickets, whereas radiation of shorter wave lengths stimulates a speedy return to the normal healthy condition.

The reaction of the eye to ultraviolet light is of particular interest. Light of wave length 7000-3900 A. U. penetrates to the retina, producing the sensation of visible light. Radiation from 3900-2940 A. U. is absorbed by the lens, producing fluorescence, and apparently results in no ill effects although most proteins are quite readily coagulated by ultraviolet light of these wave lengths. Radiations of wave lengths shorter than 2940 A. U. are absorbed by the cornea and conjunctiva, producing severe ophthalmia, and with long exposure corneal ulcers. The eye should, therefore, be carefully protected against these radiations.

Bovie (1915) has shown that ultraviolet light can penetrate blood-filled tissue to a depth of only a fraction of a millimeter. The shorter the wave length the thinner the layer of skin that will completely absorb it. Levy (1916) and Gassul (1920), from a study of mice radiated with ultraviolet light, found that although the shorter wave lengths penetrated no further than 0.1 mm., the result was not only an inflammation and pigmentation of the skin, but a strong indirect effect on such organs as the spleen and lungs. This action at a distance can only be explained as due to the formation of a photocatalyst, or some photochemical product at the surface in the blood capillaries and lymph, which are then conveyed



to the internal organs by the blood or lymph flow.

If the skin be rendered anemic by elimination of the blood by compression, the penetration of ultraviolet radiation is greatly increased; the radiations having lethal action on bacteria through as much as 4 mm. of tissues. This increase in penetration is directly due to removal of the strongly absorbing hemoglobin of the blood.

Absorption of ultraviolet light by the epidermis results in the familiar inflammatory erythema known as sunburn. This results finally in deposition of the pigment melanin in the basal cells of the epidermis. It is not known how light initiates this reaction, and there has been much speculation as to the part, if any, that this pigmentation plays in human physiology. Ultraviolet radiation has numerous effects on the blood itself. Thus, exposure to ultraviolet light increases the hemoglobin count. The white blood cells, the lymphocyte in particular, respond readily to radiation. In animals, ultraviolet lymphocytosis is due entirely to rays shorter than 3300 A. U. Radiations longer than this slightly diminish the lymphocyte count. The means by which lymphocyte forming organs are stimulated to greater activity by some photochemical change promoted by the ultraviolet radiation have been studied by J. H. Clark (1921), who found that blood radiated outside the body and then introduced into the blood stream has no effect, so that it seems that the photochemical action occurs in the walls of the capillaries themselves. It has lately been shown that the calcium and iodine content of the blood are greatly increased by the rays. Thus we have another *modus operandi* upon the metabolism.

#### THERAPY.

Having briefly reviewed the physics and physiology of heliotherapy, we now come to the practical side of the subject—when to use it. While practically all of my work has been confined to its effects in dermatology I have had the opportunity to follow some other lines to a limited extent, and also to observe the work of others.

I have had 2 cases of tuberculous peri-

tonitis under my care. One was in a young woman, 25 years of age, with fluid in the abdomen. Rest and supporting treatment were given with ultraviolet radiations 3 times weekly for a period of 2 months. At the end of that time the fluid had disappeared and the patient was in much better physical shape. She was sent to Liberty, where she received further radiations, and in about 6 months was discharged as cured. The other case was in a young girl, about 14 years old, who had been operated on in Newark. She showed an unhealthy looking operative wound with 3 sinuses. Weight 65 lb., color poor, no appetite; complained of weakness. She was rayed 3 times a week, and within 2 weeks began to show signs of improvement; appetite returned, she slept well and became stronger. The wound began to lose its unhealthy look and granulations appeared. In a month the wound had healed, with the exception of the sinuses, which persisted for about 2 months. Weight steadily increased until at the time of discharge, about 4 months later, it had reached 137 lbs.

In neurasthenias, anemias and rheumatic joints I have seen splendid results; the appetite increases, the blood picture changes for the better, pains disappear and the patient seems improved. The work of Hess in rickets has changed the former treatment. He has shown conclusively that ultraviolet rays cure the condition and that the calcium content of the blood is raised. These results have been verified by numerous other workers.

The gynecologist will find the rays of great aid in the treatment of tuberculosis of the pelvic region, as was shown by Schwartz of Chicago. The usual mortality rate from surgical treatment is 16-22%. In 102 cases treated with ultraviolet rays, his mortality was only 4%. Cervical erosions, cervicitis, vaginitis, Bartholin gland infections, leukorrhea and amenorrhea readily respond to this form of treatment. In these conditions the water-cooled quartz lamp is used. All of the different branches of medicine and surgery can find room for the use of ultraviolet rays and be amply rewarded.

The field of dermatology has been the

most fruitful in good results from this therapy. Resistant chronic eczema, psoriasis, lichen planus and urticaria have readily responded and impetigo has been cleared up by 2 or 3 treatments. Three cases of barbers' itch that were not influenced by ointments or even x-rays, responded to the ultraviolet light. In ringworm of the scalp I prefer the light to x-rays. While treatment takes longer, the alopecia that follows x-ray treatment is avoided, the hair being normal when we are through. Alopecia areata responds readily to irritating doses from the water-cooled lamp. In port-wine marks and in nevi its results are wonderful. Acne yields to it and in lupus it is the remedy sine qua non.

Although we can go down the list of dermatoses and find the ultraviolet rays are of great aid, it is conceded that they are not a cure-all. Claims have been made for them that read like a patent medicine advertisement. It has been my experience that many times when one confidently expects results he is sadly disappointed and at other times the effects verge on the miraculous. Generally, however, the rays are of great aid, not only to the specialist but also to the general practitioner.

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### LIGHT AS AN EXCITING AGENT IN LUPUS ERYTHEMATOSUS AND OTHER DERMATOSES.

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The name "lupus" gives the misleading impression that this disease is a manifestation of tuberculosis. Although tubercle bacilli, at least acid-fast bacilli, have been found in the tissue of lupus erythematosus lesions by the antiformin method (Arndt and others), and successful animal inoculations have been made (Gougerot, Ehrmann, Fordyce, and recently Cannon), and the presence of an accompanying tuberculosis has been found in a high percentage (70% in 250 cases, Roth), it has not yet been proved that lupus erythematosus is tuberculous in origin.

Both gratifying effects and untoward results were observed after the use of tuberculin in L. E. (Pringle, E. Hoffman, W. Highman). Pick, after studying the effects of tuberculin in 29 cases, concluded that L. E. dis-coids are not a manifestation of tuberculosis. In 2 cases I observed the healing of accompanying tuberculids after the use of tuberculin, while the L. E. lesions showed no change whatsoever.

Throne, in a recent paper states: "No relation of L. E. to tuberculosis was found. On the contrary, any relationship seems to have been eliminated. The blood complement fixation test for tuberculosis is negative in L. E."

W. H. Barber, London, and other English observers, claim marked improvement of L. E. after the use of autogenous streptococcus vaccine. Vaccine treatment was of no value in Throne's cases.

Syphilis may simulate L. E. and salvarsan gives gratifying results in this condition, which is also improved by krysolgan and similar gold preparations. Shamberg recently reported improvement of L. E., with gold-thio-sulphate.

Focal infections (teeth, tonsils, intestines) have been found to cause L. E. (Hartzell and others). By an increasing number of writers the disease is considered a chronic inflammation, due to a toxic infection, the exact nature of which is not known.

There is a tendency to classify L. E. as a form of skin tuberculosis.

It is highly probable that certain types of disseminated L. E. should be included in the erythema group of skin diseases (Engman and Weiss). The erythema group may be caused by toxemia or by embolic dissemination of microorganisms. The agent or agents which may cause the phenomena usually do not act continuously but seem to come in periods or waves producing relapses. Periodic improvements and relapses are also characteristic of L. E. As we have seen, the causes are manifold and different agents may produce the same picture, as in erythema multiforme. In what follows, I shall try to show that light is able to produce L. E., similar to the eruptions in pellagra, hydroa vacciniforme and xeroderma pigmentosum.



*Pellagra*.—Patients suffer with what is presumed to be a sunburn. During the winter months they are often entirely well. The disease occurs most often in the spring and autumn, a feature very definitely present in L. E. patients in Germany. In observing the development of pellagra lesions, it is noted that at first they are large and macular, light or dark red in color; these soon fuse, forming a patch of dermatitis almost identical in appearance with that caused by the sun. The lesions are found chiefly on the most exposed areas of the body. In the majority of cases the dorsum of the hands, the wrist and some parts of the face, neck or scalp are involved. The symmetry of the lesions is striking and characteristic. That the rays of the sun are a factor in determining the localization of the lesions is accepted by all observers. Mental depression and worry are often observed. Cure of a case of pellagra by pure protein diet, and production of skin lesions by exposure to sunlight have been described by Mook and Weiss, St. Louis. Goldberger, Waring and Willets report that in 3 institutions the diet was modified to increase the fresh animal and leguminous items and to reduce the carbohydrates. No new cases appeared and of 204 patients already affected, only one showed recurrence; 50% of the control patients, however, had recurrences. From these results may it not be assumed that defective protein supply may be the cause of photosensitiveness?

*Hydroa Vacciniforme*.—The direct cause in most cases is exposure to the sun's rays. The eruption is symmetrical and is usually limited to the uncovered parts of the body, the bridge of the nose, the cheeks and ears and the backs of the hands being the parts most affected. Ehrmann showed that light passed through blue glass was just as potent in causing the eruptions as the sun's rays, but when the light was passed through red glass, which absorbs the ultraviolet rays, no lesions resulted.

*Xeroderma Pigmentosum*.—In a certain number of cases the first change from the normal has been an erythema or dermatitis. In several instances sunburn was recorded as preceding the characteristic eruption. The lesions occur on the exposed surfaces of the body, including the face, neck, upper chest (as far as

the third rib), the hands and the forearms. Atrophic spots and telangiectasis are present. The x-ray skin-like appearance is not observed in L. E. as in X. P. Malignant changes of the skin are seen in both. The influence of light upon the development of the disease, in susceptible individuals, has been noted by many observers, and the consensus of opinion appears to be that the disease is the result of the action of the sun's rays upon a peculiarly sensitive skin. The pathologic condition of the cells, called predisposition or photosensitivity, may have something to do with blood relationship, as in X. P. protein deficiency. As in the pellagra cases cited photosensitive substances may also be found in the urine.

In comparing these diseases with L. E., who can doubt the similarity of these disorders? Could L. E. not be properly placed in this group of light dermatoses and would not investigations along this line be more promising than along the old idea of its tuberculous origin?

After inquiring of a great number of L. E. patients here and abroad, as to the first manifestation of their disease, I learned that a high percentage had exposed themselves to sunlight, in the mountains or at the seashore. They also seemed to belong to types in which the skin does not produce enough pigment as a protection against actinic rays. L. E. is rare in the colored race.

Some patients with L. E. discoids who were given Alpine light treatment developed L. E. disseminatus, even after one exposure to the ultraviolet rays. Dr. Wise observed dissemination of L. E. after x-ray treatment of cervical tuberculous glands in an L. E. patient. One of the last private patients with L. E., whom I saw abroad, was first treated in a University Clinic with silver salvarsan and tuberculin and later in our private clinic with krysolgan and x-rays. This patient also had tuberculous glands, which were treated with x-rays, and she developed a dissemination of L. E. to which she finally succumbed. Autopsy was not performed.

Recently I saw 3 cases of L. E. disseminatus, in all 3 of which dissemination followed one exposure to the Alpine light. I had warned

the first patient, about a year ago, not to expose herself to direct sunlight nor to take light treatments. This patient did very well with sugar of lead applications. She avoided the sun as much as possible at her summer residence at the seashore. After her return she was advised to take Alpine light treatment. This was applied to the face only and was followed by a severe outbreak of L. E. disseminatus, accompanied by general malaise. The patient is slowly recovering. At present the forearm shows vesicles and blisters upon an erythematous base. The dermatitis of the chest and back is clearing up under vaselin gauze dressings, colon irrigations, free use of water, and sodiumthiosulphate internally (suggested by Dr. Whitehouse), 0.5 gm., t.i.d. being followed by decided improvement. Patient still has a bluish-red patch, about the size of a hand, upon the left buttock, where she had previously received tuberculin injection. Blood chemistry and blood count show nothing pathologic. Hematoporphyrin was not found in the urine. Cultures for streptococci will be made from the tonsils and the feces. The teeth had been previously removed, but this had no effect on the disease. Goldthiosulphate will be used, as soon as the general condition of the patient permits. By no means do all cases of L. E. end fatally.

Another patient, from the New York Skin and Cancer Hospital, service of Dr. Aitkin, had similar ill effects from the exposure to Alpine light, which was given by mistake. This case was presented by Dr. Bechet before the N. Y. Academy of Medicine.

A third patient who has just come under my care, had a few spots on his face before his physician gave him Alpine light treatment. Dissemination over the entire face and neck followed. I am giving this patient intravenous injections with a gold preparation which was given to me by the courtesy of Dr. Shamberg. Fred Wise warns against the use of Alpine light in L. E. and proposes a skin test on the healthy skin, before applying the light, while in his paper on practical observations on L. E. (1917) he recommended the use of ultraviolet rays for its gratifying effects. Its use is also recommended in most text books on skin diseases. Whitehouse, McKee and others

agree that mild treatment should be used in this erratic disease. Whether light is the only exciting cause of L. E. is hard to determine, because any kind of irritation seems to be liable to cause an aggravation. The application of a plaster to the chest determined the localization of L. E. lesions in one of Dr. Whitehouse's cases. I have seen the spreading of L. E. lesions after intradermal injections of staphylococcus vaccine into lesions on the face. When Unna emphasizes the danger of stimulating a dry indolent process into an active dermatitis his treatment still seems to be the one of choice in spite of the legion of remedies recommended.

I have not gone into descriptive detail of cases, but have rather emphasized the danger of light in the broadest sense of the word sunlight, Alpine light and x-rays. Red light may be given a trial. I should like to stimulate investigations along the line of photosensitivity. Zeozonpaste, red salves or red veils, which absorb the ultraviolet rays, may be able to avoid dissemination. Desensitization, for instance, by giving the patient a special diet may be of value. Cure of pellagra cases through pure protein diet is of considerable interest in this connection.

Tuberculosis or not tuberculosis is the question. The inmates of hospitals for the tuberculous very seldom have L. E. Boch and Fuchs proved in 4 cases the presence of tubercle bacilli by means of animal inoculation. Local reaction with tuberculin occurs but is a great exception. Tuberculids, erythema induratum and lichen scrophulosorum, concomitant diseases of L. E., react to tuberculin, while lupus erythematosus does not, as a rule. Favorable results with tuberculin as well as dissemination of L. E. after injection of tuberculin in the lesion itself (E. Hoffmann), have been observed. Bloch found products of tubercle bacilli in lesions of L. E. He thinks it is a modified virus of tubercle bacillus which causes L. E. Lewandowsky, the best expert on tuberculosis of the skin, says that L. E. has a connection with tuberculosis, but we do not know the bacterial toxin nor the chemical substance nor a living organism as the cause of L. E. The use of Alpine light in L. E. should be discarded altogether.



## PHYSIOTHERAPY IN THE HACKENSACK HOSPITAL.

SPENCER T. SNEDECOR, A.B., M.D.,

Director of the Physiotherapy Department of  
Hackensack Hospital.

The Hackensack Hospital is a general hospital of 250 beds, the only one among the 25,000 people of the city of Hackensack. To it come all classes of people, and its cases constitute a cross section of the medical practice of the city. Its physiotherapy department therefore affords the opportunity to estimate the field of usefulness as well as the limitations of physiotherapy in general practice.

Physiotherapy is the application of physical measures in treatment and consists largely of the application of electricity to the various forms of abnormalities of the body. The electricity is sometimes applied directly for its stimulative effects, but is more often utilized as a source of heat and light. Next to electricity water is the agent most commonly used in physiotherapy, externally in the form of baths and sprays, internally as irrigations.

### THE AGENTS IN PHYSIOTHERAPY.

#### I Heat.

##### (1) Conductive Heat.

Hot water bottle, electric pad, hot bath, hot compresses, etc.

##### (2) Convective Heat—Radiant Heat.

- (a) Carbon filament lamps.
- (b) Bakers.
- (c) Cabinets.
- (d) Deep-therapy lamps.
- (e) Infra-red lamps.

##### (3) Conversive Heat—Diathermy.

High frequency electric currents.

##### A Medical—Forms of application-circuits.

- (a) D'Arsonval.
- (b) Oudin.
- (c) Tesla.
- (d) Autocondensation.

##### B Surgical.

- (a) Electrodesiccation.
- (b) Electrocoagulation.
- (c) Endothermy, radio knife, etc.

#### II Ultraviolet Light.

- (1) Carbon Arc Lamps.
- (2) Quartz-Mercury Vapor Arc Lamps.
  - (a) Air cooled.
  - (b) Water cooled.

#### III Other Electrical Currents.

- (1) High Voltage.
  - (a) Static electricity.
- (2) Low Voltage.
  - (a) Faradism.
  - (b) Galvanism.
  - (c) Sinusoidal Currents.

#### IV X-Rays.

#### V Hydrotherapy.

- (1) External.
  - (A) Hot Baths.
    - (a) Body Baths.
    - (b) Sitz Baths.
  - (B) Whirlpool Baths.
  - (C) Douche Spray.
- (2) Internal.
  - (A) Colonic Irrigation.
  - (B) Vaginal Douche.
  - (C) Gastric Lavage.

#### VI Mechanotherapy.

- (1) Massage.
- (2) Vibration.
  - (a) Hand.
  - (b) Mechanical.
- (3) Exercises.
  - (a) Active.
  - (b) Passive.

Nearly all these agents are used in the Hackensack Hospital with varying degrees of frequency and usefulness. They are applied only on prescription of the visiting physicians and surgeons and to those cases in which therapeutic results may be reasonably expected. During the past year 6432 patients have received 12,457 treatments, from which it will be noticed that each patient averages 2 different treatments on each visit. During the past month over 30 patients a day were treated in the department. The physiotherapy staff consists of a trained technician, 2 student nurses and an orderly. Every patient is examined before the first treatment and the exact prescription is outlined for the technician to follow.

All treatments are supervised and the progress from time to time is noted.

Our apparatus is listed as follows: 2 heat lamps, 3 bakers, 3 infra-red lamps (one very large), 1 air-cooled quartz lamp, 1 water-cooled quartz lamp, 1 carbon arc lamp, 1 large high frequency machine, 1 portable high frequency machine, 1 Morse wave generator, 1 Bristow coil, 1 whirlpool bath, 1 static machine.

The foregoing list is suitable for a similar department in any general hospital, or for a doctor who wishes to go into physiotherapy extensively.

The various methods used in physiotherapy and the therapeutic indications of each will now be described.

#### HEAT.

Heat is applied therapeutically in 3 different ways: by conduction, convection, or conversion.

*Conductive* heat is that which is imparted to the patient through contact with some heated object, such as the familiar hot water bottle or electric pad. Heat is among the oldest and best known forms of therapy. The means for the application of conductive heat may be improvised readily and are not dignified as a special division in the Hackensack Hospital.

Heat derived from a radiant source located at a distance from the body is called *convective* heat. The source of radiant heat used in physiotherapy is electric heat bulbs which differ from common electric light bulbs only in that they have a coiled carbon filament which gives off more heat than the tungsten filaments of light bulbs. The part of the body to which radiant heat is applied may be entirely exposed to the air, or it may be enclosed in a baker or cabinet. This form of heat throws its greatest radiance on the skin and, although some of the lamps are very powerful, the underlying tissues receive only a small fraction of the heat which is tolerated by the skin.

The small heat lamps used in the Hackensack Hospital have 100 and 200 watt bulbs mounted in concave reflectors which send out heat radiations in a straight line to the patient. The larger, or deep-therapy, lamps contain huge 1000 and 1500 watt bulbs in reflectors which must be carefully ventilated in order to pre-

vent the tremendous heat from burning the bulbs out. These reflectors are so shaped as to diffuse the rays sent to the patient in order to make the application of such strong heat bearable. For heating large areas with a more penetrating heat, such as in sciatica or back sprains, these great lamps are very useful.

The Hackensack Hospital has found the application of radiant heat effective in the following conditions: (1) For many aches and pains, such as myalgia, lumbago, arthritis, sprains, sciatica and other forms of neuritis. (2) For fractures in which early exposures improve the superficial circulation and lessen the edema. (3) For relaxing the muscles before any massage. (4) For stimulating paralyzed muscles. (5) As a preliminary to ultraviolet ray treatment, as these stimulative short rays are absorbed better by tissues that have been heated.

Bakers and cabinets are modifications of the heat lamps. Bakers are concave metal ovens lined with electric bulbs and made in sizes to fit over the arm, leg, or even the whole body. They are especially useful in treating fractures.

Cabinets consist of wooden boxes large enough for the patient to sit in with only the head protruding. Heat is furnished by many heat bulbs attached around the sides. The purpose of the cabinet is to aid elimination by sweating, and in cases of obesity and multiple arthritis it is often effective.

A new type of lamp on the market is called an infra-red generator and features a special carbon heating element instead of the heat bulbs. The true heat rays are invisible and are called the infra-red rays because they are located in the spectrum just beyond the visible red. The heat bulbs give off many light rays which have no heating effects. In fact such a 100 watt bulb will light up a fair-sized room, but these infra-red elements glow only a dull red and give off a larger proportion of the true heat rays, which also seem to be more pleasing and penetrating. They are made for all sizes of lamps.

#### DIATHERMY.

A third type of heat is produced deep in the body by the passage of an electrical current through the tissues. This form of heat is



known as diathermy or conversive heat. The tissues through which the electricity passes become heated in the same way that the filament in an electric light is heated. Its effects are deep and penetrating in contrast with the superficial effects of a hot water bottle or heat lamp. Diathermia will heat any organ or structure in the very center of the body to any degree of temperature for as long a period as one may desire. Actual thermometer measurements show that a vaginal temperature of  $115^{\circ}$  is readily maintained. To accomplish this result without pain or damage to the tissues, diathermy requires a high frequency current, by which is meant an alternating current with impulses following one another in such rapid succession that living cells make no effort to respond to them. The common street current alternates 60 times a second, whereas the high frequency current alternates 1 to 2 million times a second.

Medical diathermy is a constructive force that heats the tissues, bringing fresh blood supply and increasing metabolism. Surgical diathermy is a like force carried forward to the destruction of tissue by coagulation or cooking.

All high frequency machines have 3 essential terminals or lead-off posts from which the several different types of treatment are obtained. The double terminals are called the d'Arsonval circuit and the single terminal the Oudin, both being named for their discoverers. The development of a high frequency current may be described as follows: The street current is led through a heavy transformer or induction coil which steps the voltage upward from 110 volts to as high as 30,000 volts in some machines. The next step is to raise the frequency or number of alternations per second. This is done by a circuit with a variable spark gap and a Leyden jar condenser on either side of it. The spark gap breaks the circuit for an infinitesimal part of a second and the current reverses. These Leyden jars accumulate the current until enough is stored up to jump across the gap and again reverse the current. Then the voltage is once more increased by passing the current through a d'Arsonval solenoid from which 2 wires lead off to the patient. For the Oudin current the voltage is raised still higher by running the

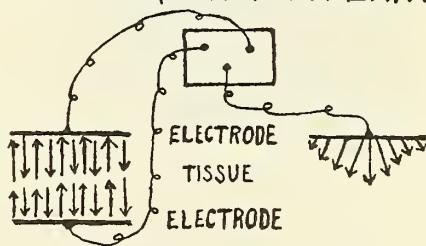
current through an Oudin resonator, which resembles a clock spring, and thence by a single wire from the center of the coil to the patient.

### MEDICAL DIATHERMY.

Under the head of medical diathermy 4 different circuits are arranged: d'Arsonval, Oudin, Tesla, and Autocondensation.

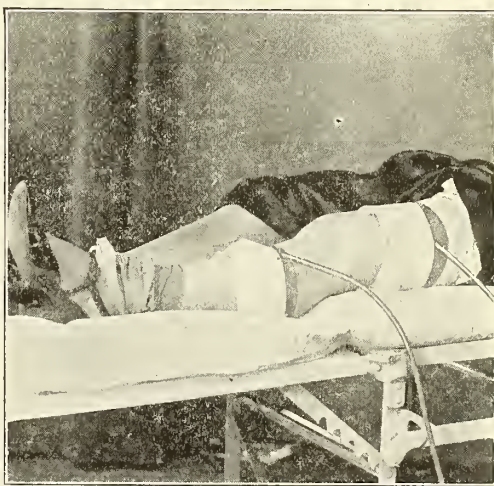
*D'Arsonval Circuit.*—This is the most useful form of diathermy. The part to be treated is connected in a circuit with 2 plate electrodes, one on each side of the part, attached to the d'Arsonval terminals.

## HIGH FREQUENCY GENERATOR



### D'ARSONVAL CIRCUIT

### UDIN CIRCUIT



Diathermy to Knee—Cuff Above and Below

To treat a knee one electrode is placed on either side and the current passes transversely through it. Or, if preferred, the cuff method may be used with one circular band of metal 3 in. above the knee and another below. To heat the liver 2 electrodes, about 4 by 4 in., are placed on the anterior and posterior surfaces of the upper abdomen so that the liver

will receive the current directly between the 2 plates.



Diathermy to Chest—Plates Front and Back.

The best electrode material is No. 22 Crook's metal, a tin composition which is easily malleable. It is inexpensive and may be cut into any shape. While there are many elaborate electrodes with sponge or felt centers, or of mesh, the well soaped block tin electrode is our preference. Special vaginal, rectal and oral electrodes are of course necessary.

The dosage or amount of heat the patient receives may be regulated in 2 ways: by changing the amount of street current which enters the transformer and by widening the spark gap. Within limitations the wider the spark gap the greater the voltage and the heat. The technic of dosage is not difficult for any administrator to master. Generally speaking, the dosage is guided by the tolerance of the patient to a comfortable heat. One should always be watchful but need not be unduly concerned about the possibility of burning a patient. In over 3000 diathermy treatments we have witnessed only one real burn and 3 or 4 blisters from sparking at the edge of the electrode.

The uses to which this form of diathermy may be put are many and varied. Better than mastering all the possible applications is for the physician to learn the simple fact that the purpose of diathermy is to create heat and hyperemia in the tissues. Diathermy is therefore contraindicated where there is danger of hemorrhage or of pus without free drainage.

In the Hackensack Hospital its use is wide and the results are excellent in the following treatments: (1) For stiff joints resulting from

fractures or arthritis; (2) for infections with drainage; (3) for pain in fractures, strains, bruises, neuritis, and sciatica; (4) for some types of hypertrophy of the prostate; (5) for gonorrhea, epididymitis and buboes in male, vaginal and pelvic infections in female, arthritis and posterior urethritis; (6) for maintaining nutrition in paralyzed muscles; (7) for calcification of bursas; (8) for arthritis—sometimes quite effective and again disappointing.

*Oudin Circuit.*—This circuit gives its current off from only one terminal and is therefore known as a monopolar current. Instead of the metal electrodes employed with the d'Arsonval circuit, special electrodes of blown glass bulbs are used to bring this single wire current in contact with the body. Some are merely blown glass with a vacuum, known as vacuum electrodes, and are manufactured in many shapes. The electric current is conducted by the vacuum to the walls of the glass, which passes the current into any part of the body with which it comes in contact. The glass itself remains cold but the electricity forms conversive heat in the tissue immediately around the electrode. Other glass electrodes, which are quite as effective without a vacuum, are lined with quicksilver to conduct the electricity.

The uses of the Oudin current for medical diathermy are comparatively limited because the heat is generated only superficially around the electrode. Wherever it may be used the d'Arsonval circuit is more efficient. Specially shaped electrodes are manufactured for use in the vagina, rectum, urethra and nose. The Hackensack Hospital has found but little use for them.

*Tesla Circuit.*—This current is a monopolar circuit, similar to the Oudin, and uses the same kind of electrodes with like effects. However, it gives a rougher and less pleasant sensation and therefore it is generally agreed that it serves little purpose.

*Auto-Condensation.*—This is an indirect method of passing a high frequency current through the whole body. The patient lies on his back on a special pad of sheet metal, 6 ft. long, and covered with leather for insulation. In his hands he holds a metal handle which is



attached to one pole of the d'Arsonval circuit, while the metal pad is attached to the other pole. Only one electrode is touching the patient, but the current passes from the metal pad through the patient and out through the metal handle, and vice versa, some million times a second. In electrical parlance the current is induced through the patient's body which acts as a condenser. The effect is generalized heat through the whole body, with a pronounced effect upon metabolism. Typical effects are



Auto-Condensation.

(1) lowering of the blood pressure in hypertension cases, and (2) increased elimination in multiple arthritis and toxemia

#### SURGICAL CURRENTS.

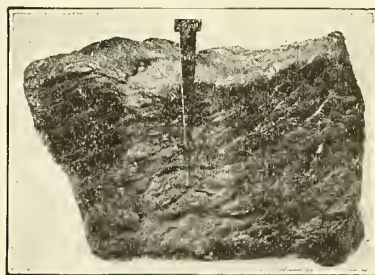
The surgical high frequency currents serve an entirely different purpose from those of medical diathermy. They are essentially destructive forces, and the destructive action results from focusing a strong high frequency current on the tissue with a needle, concentrating so much heat at one point that the tissue is literally cooked.

#### ELECTRODESICCATION AND ELECTROCOAGULATION.

The terms electrodesiccation and electrocoagulation are often confused and there is no clear cut distinction between them. In general, electrodesiccation has come to mean the application of surgical diathermy on the surface; and the term electrocoagulation is applied to the destruction of deeper tissues. For either effect the Oudin or d'Arsonval circuits may be used, but the Oudin is more satisfactory for the former, and the d'Arsonval for the latter.

To obtain a superficial desiccating or dehydrating effect a blunt needle is connected with the Oudin terminal and is held near to or lightly touching the tissue. The current is then adjusted so that a continuous flow of sparks will jump a gap from  $1/8$  to  $1/16$  in. between the point of the needle and the tis-

sue. The tissue just at the point of the needle turns white and becomes charred, owing to the heat of the spark. The needle is moved until all the pathologic tissue has been so treated. Within a few days the superficial slough will come off. This treatment is very satisfactory for benign skin tumors (warts, moles, nevi), tonsils, granulomas, benign and malignant growths in the bladder, etc. There is little or no pain if the current is accurately adjusted.



Electro-Coagulation.

With electrocoagulation the needle is attached to one of the terminals of the d'Arsonval circuit and is plunged into the tissue before the current is turned on. The other terminal is led to a large nonlocalizing electrode placed anywhere on the body in order to complete the circuit. When the current is turned on the tissue around the needle is "cooked". The needle is moved until all the tissue is destroyed. In a few days the dead tissue sloughs out. This treatment is adapted to deeper growths, such as hemorrhoids and accessible malignancies.

#### ENDOTHERMY AND RADIO KNIFE.

Endothermy, radiothermy, accusector, or whatever the various proponents choose to call them, are special applications of the preceding forms of surgical diathermy and are at present in the experimental stage both as to generative apparatus and application. Much thought and energy are being expended to develop a perfect cutting current, but many difficulties are met: (1) The cutting needle must be able to divide tissue as if a knife has passed through it. Such an effect is called molecular disintegration; the very molecules of the cells are thrown apart from one another. (2) The current must have sufficient coagulating ef-

fect to prevent hemorrhage. (3) It must operate under water. These are a few of the requirements and in order to secure them a special undamped or sustained high frequency current is required. Some manufacturers have used radio tubes and others spark gaps. Perhaps eventually such a current may be devised for general operative work, but at present results are not satisfactory except in special cases. Some excellent work is being reported in New York in cutting furrows through the middle of lobes of large prostates with endoscopes containing wire loops. Howard Kelly finds his "accusector" valuable for bladder tumors.

ULTRAVIOLET LIGHT.

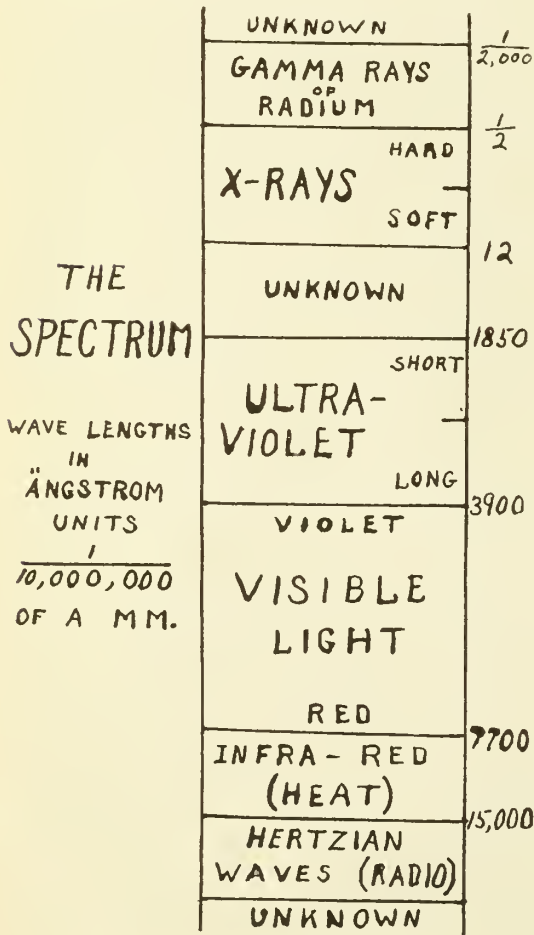
There are many rays which we know about but cannot see, such as x-rays, radium rays, hertzian rays, ultraviolet rays, and many more which are still unidentified. To understand these rays one must appreciate a diagram of

the spectrum where all rays are differentiated by their wave lengths.

The characteristics of the ultraviolet rays are of exceptional interest. They are vitally important in the growth of the human body. Vitamin D, the antirachitic element necessary for the proper calcium development of bone, has recently been found to be identical with these same radio-active ultraviolet rays. Hess of New York has proved that the ultraviolet rays are specific for the cure of rickets—one of the few specific remedies known to medicine. Gates, at the Rockefeller Institute, showed that the parathyroid glands of rabbits are enlarged after ultraviolet irradiations. From these observations we deduce the fact that ultraviolet rays have a profound effect on the calcium metabolism in the body. Furthermore, irradiations from these rays increase leukocytosis and stimulate the formation of erythrocytes.

Sunlight contains the ultraviolet rays, but window glass filters them out. Water conducts them to the bottom of the sea where the fish, particularly the codfish, absorb them in large quantities. Even the atmosphere filters out some of the ultraviolet rays which the sun sends us. Rollier's success in treatment of tuberculosis with heliotherapy, high up in the Swiss Alps, is due to the clear rarified atmosphere which transmits more of the ultraviolet rays than the low foggy smoky clouds over cities.

The short ultraviolet rays penetrate the skin to a distance of only 2 mm. and the long rays to only 3-4 mm. No free blood is circulating so close to the surface. How then are the ultraviolet rays absorbed into the system? Professor Steenbock, at the University of Wisconsin, discovered that ultraviolet radiations will activate cholesterol and give it antirachitic properties. The assumption is therefore, that the ultraviolet rays are absorbed by the cholesterol content of the skin. Steenbock has further found that milk, and in fact any lipoidal substance containing cholesterol, when exposed to the ultraviolet radiations may be activated with antirachitic properties. The day is not far off when activated milk may possibly take the place of cod-liver oil.





## CARBON ARC LAMPS.

In 1893 Finsen started heliotherapy in Copenhagen, using carbon arc lamps. The carbon arc is formed by passing a strong electric current between 2 carbon pencils. At first they must touch each other to complete the circuit. Then by separating them about  $\frac{1}{2}$  in. a brilliant arc is formed by the electric current passing through the intervening atmosphere. Many strong visible light rays are given off, but also a large number of the long mild ultraviolet rays. It is interesting to note that any metal when heated to a certain degree will emit ultraviolet radiations.

Finsen placed this carbon arc in a reflector and exposed patients to the rays. In particular he pointed out that it was the ultraviolet rays and not the light rays that had therapeutic value. His efforts met with success in many cases of lupus. More recently several modifications of the carbon arc have been advanced in lamps with specially impregnated carbons and higher voltage. The advantage claimed for the carbon lamps is that they do not easily burn the patient, and hence longer exposures are possible. The initial dose for an adult is about 5 minutes, and the time is increased up to 30 minutes with treatments every other day.

In comparing the quartz mercury vapor and the carbon arc lamps, Hess, who is an authority on the treatment of rickets, says he has found little difference and that both are satisfactory. It must be remembered, however, that the carbon arcs do not give off any of the short ultraviolet rays whose use will be described later.

## QUARTZ MERCURY VAPOR LAMPS.

Cooper Hewitt not so many years ago patented the mercury vapor arc, which means that he took mercury instead of carbon for his radiant metal. The principle is much the same. A current was passed through a column of mercury which was then broken and a very luminous arc, rich in ultraviolet rays, was formed. The next problem was to find a container for the mercury which would transmit the ultraviolet rays. Blown quartz was discovered to be the most practical because it passes the ultraviolet rays of all wave

lengths down to 1849 angstrom units and, furthermore, will withstand the temperature necessary to generate large quantities of ultraviolet rays, some  $900^{\circ}\text{C}$ . Flurospar is even better than quartz but is much scarcer.

A burner is good for about 2000 hours, but during that time it gradually weakens. Slowly the quartz turns into a substance called trydomite, which is opaque to the ultraviolet radiations. Care must be taken to keep the quartz burners cleaned off with alcohol and not to touch them, for dust and finger prints are etched into the burner when it becomes red hot and will deflect the rays. These burners require 5-10 minutes to heat up sufficiently to give off their maximum amount of ultraviolet rays. As the quartz heats up, the amperage required in the current goes down and the voltage ascends.

Two types of quartz burners have been devised, the air-cooled and the water-cooled. The air-cooled burner cannot be brought closer than 8 in. to the patient without danger of heat burns. This distance is too great for the patient to receive the stronger doses of short ultraviolet rays. With the more efficient water-cooled burner exposures are made at 2 in., or the burner may even be pressed against the skin. As a result of these distinctions the air-cooled lamps are most useful for treatments over large areas where effects from the long ultraviolet rays are desired. The water-cooled lamps are used for localized stronger reactions. Quartz applicators of all descriptions for nasal, laryngeal, vaginal and other treatments are made to fit the water-cooled lamp.

To determine the dosage of an ultraviolet lamp each one must be calibrated by the user with tests over small areas of skin. Doses are measured in terms of reactions, and the first degree reaction is a slight erythema which fades in a few hours. Successive degrees are stronger until a blister effect is reached which is called fourth degree. In treating different patients and various portions of the body several peculiarities must be remembered. Exposed parts of the body, such as hands and face, are not so sensitive as the abdomen. Fair skinned persons react more quickly than brunets. Colored people require much lon-

ger exposures and the effects can only be judged by the amount of peeling which follows. Scales, crusts, and scabs intercept the rays and weaken the reaction. The eyes must be protected while exposed to a strong ultraviolet light or else a painful conjunctivitis will ensue several hours later.

The Hackensack Hospital uses all 3 types of burners, carbon arc, air-cooled, and water-cooled mercury arc lamps, in a large number of cases. The following is a list of the conditions in which favorable results are obtained: (1) rickets, tetany and deficiency diseases; (2) anemia, debility malnutrition and convalescence; (3) tuberculosis in all forms except pulmonary; (4) germicidal effect in wounds; (5) for ulcers, decubitus and indolent wounds; (6) skin disease, alopecia, psoriasis, nevi, lupus; (7) hay-fever, nasal infections; (8) bronchitis, unresolved pneumonia.

#### STATIC ELECTRICITY.

Static electricity was the first form of electricity to be discovered, probably by accident, because static is generated so easily by the friction of a positively charged substance against some negatively charged material, as in rubbing a silk cloth on a glass rod. Lightning is an enormous charge of static electricity.

About 30 years ago Morton, along with other workers of that period, took up the use of static for the treatment of disease. Morton added a Leyden jar to each pole of the static machine and thereby stored up larger impulses.

The static apparatus is an exceedingly high voltage, selfcharging condenser machine. The current is generated by the friction of brushes against revolving glass plates. The greater the number of glass plates, the higher the voltage charged up, but although the terrific charge of a million volts is formed, the amperage remains less than a single milliamperere. The human body, heart, and other organs, will stand such voltage as long as the amperage is so negligible.

When applied to human tissue the static current produces cellular contraction. Its rationale in treatment is based on the understanding that inflammation, whether trauma-

tic or infective, makes pain because of the pressure of the exudate on the nerve endings. When the edema is reduced, the pain is relieved. The physical action of the static current consists in mechanical contraction or squeezing of the cells, which forces out the exudate and relieves pressure on the nerves. This is in reality atomic or electronic massage. The dosage of the current is adjusted by the width of the spark gap.

Static current is applied in 3 ways: by the Morton wave, static sparks, and brush discharge.

In using the Morton or static wave the Leyden jars are connected into the circuit; the negative pole is grounded; the positive pole is attached to the patient with metal electrodes adjusted as for diathermia. The patient always sits on an insulated platform. As the Leyden jars become overcharged, the current jumps from one electrode to the other, imparting a sharp impulse to the tissue, not unpleasant when one is accustomed to it. This shock gives a sharp, severe contraction to every cell between the electrodes, but so quickly that it is scarcely felt.

Static sparks are applications of the static current in a more concentrated form. The patient is connected to the negative pole. The positive pole is grounded and an insulated rod with a brass ball on the end, which is also grounded, is passed close to the affected tissue. As the ball comes close enough, the charge jumps from the ball to the patient and gives a severe sharp impulse, very effective but rather strenuous.

The static brush discharge or effluve utilizes the same hook-up but instead of a large brass ball a long pencil-pointed DeKraft rod is passed over the pathologic area. The result is mild massage, very pleasant and soothing.

Static treatment is excellent especially as a decongestor after heating tissues with diathermia. It is commonly used for the relief of congestion in prostatic hypertrophy, traumatic bruises, sprains, myositis, charleyhorse, adhesions, neuritis, and edema after fractures.

#### FARADISM.

The faradic current is an alternating current of low voltage induced from the primary



coil of a transformer upon a secondary coil which is wound around an iron core. The faradic current which is led off from the secondary coil is strongly irritating and its only practical use is to stimulate muscles to involuntary contractions. While thus very limited in its field of therapeutic activity, there is no current equal to it in stimulating paralyzed muscles as soon as they have recovered sufficiently to react to it. Also it serves adequately for muscle and nerve testing. The Hackensack Hospital frequently uses it to exercise and stretch muscles that are bound by adhesions, or to loosen up tendons that are caught in scar tissue.

### GALVANISM.

Galvanism is a useful and yet poorly appreciated therapeutic agent. The galvanic current is constant and direct, flowing steadily from the positive to the negative pole. Therefore it has polarity, and in using it one must be careful in placing the positive and negative poles upon the body, for in many instances their effects are contradictory. In a wide variety of cases this force gives effective therapeutic results.

Its actions may be classified as mechanical, physical and chemical. In a mechanical way it will stimulate muscles to contract. This application is of particular purpose in the regeneration of paralyzed muscles, as in infantile paralysis, Bell's and Erb's palsies, etc. As a paralyzed muscle regains its function it will respond first to a galvanic current. Exercise of such paralyzed muscles makes them stronger. Excellent results are being obtained in cases of seemingly hopeless paralysis, even after years standing.

The physical effect of the positive pole is vasoconstriction, thus relieving congestion and pain due to pressure. It is helpful in neuritis or arthritis, in controlling hemorrhage, or in epilating hairs by application at the base of follicles.

The negative pole relaxes and softens tissue, causing vasodilation and inducing congestion. For its effects on softening scars we have found it useful after tendon sutures, in urethral strictures, and in other scars.

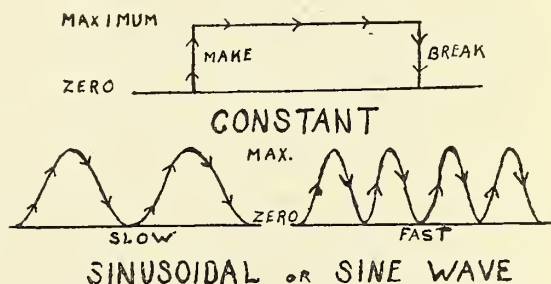
The chemical possibilities of the galvanic

current come from decomposing drugs into their elements and instilling them into the body cells by electrolysis. As an example, if one touches a positively charged copper needle to a granular eyelid while a negatively charged electrode is attached nearby to the face, copper molecules are ionized into the tissue of that eyelid much more effectively than if the eye had been touched with a stick of copper sulphate. The salts of many drugs, such as copper, zinc, magnesium, quinin, cocain, and adrenalin, may be so applied when charged positively while the iodine preparations, sodium chloride, and sodium salicylate, must be charged negatively to be ionized into the tissues. Such treatments are applicable for erosion of the cervix, hemorrhoids, ulcers, granular pharyngitis, etc.

### SINUSOIDAL CURRENTS.

The sinusoidal, or sine wave, currents are forms of applying either the galvanic or the faradic currents. The intensity of the current is made to rise and fall rhythmically by an elaborate arrangement of cams and eccentrics on a generator. Instead of pressing a contact button to bring about the sharp contraction of a muscle, the sine wave generator gives a continuous flow of surges less painful but more stimulating and more effective.

## TYPES OF CURRENT



For the mechanical purpose of exercising muscles the Hackensack Hospital uses the sinusoidal type of current entirely, inasmuch as that method of applying involuntary muscular massage and exercise has been found most pleasant to the patients and withal effective. Excellent results with stiff muscles, joints and tendons have been attained.

### X-RAY.

X-ray is a real agent of physical therapy, but the discussion is omitted from these papers because its application is so widely recognized as to require a special treatise of itself.

### HYDROTHERAPY.

Hydrotherapy occupies a large rôle in the every day practice of most physicians. A sponge bath is recommended for the reduction of fever; a hot tub bath, for its reducing effects; a sitz bath, for a congested prostate. Thousands of people seek cures at the Spas and famous Springs. Internally colonic irrigations, vaginal douches and gastric lavages are often prescribed.

A physiotherapy department uses hydrotherapy in two forms, the spray and douche, and the whirlpool bath. For the spray, the patient stands in a specially constructed shower so that a fine spray strikes him from all sides. Following this the attendant douches him up and down with water under pressure from a distance of 15 feet. This treatment is often given after a cabinet bath, and is followed by massage in cases of arthritis and toxemias.

The whirlpool bath is given in a trough, built to fit an arm or a leg and filled with water, usually at 100-110° F., which is churned constantly and mixed with air, either by opposing inlets of water or by an electric vibrator. This procedure serves an excellent purpose in increasing the superficial circulation and relieving the edema after fractures, in lymphangitis and other congestive conditions.

### MASSAGE.

Massage is an art founded upon sound theory and developed only by a great amount of practice. Several schools give diplomas to masseurs and masseuses, but perhaps only 1 operator in 5 has learned the subtle knack of massage. The act of rubbing and squeezing the muscles is not massage. As we instruct student nurses, who are continually changing, we have had opportunity to observe that some entirely fail to grasp the purpose. We have also noticed that the patients soon express a preference for the more skillful hands.

Massage is applied in 3 forms, commonly known by the French terms, effleurage or stroking, petrissage or kneading, and tapotement or hacking. Just 3 simple principles should be mentioned. Tissues should be heated before massage; the stroke should always be in the direction of the return flow of blood; massage treatment should always begin and end by light stroking.

Through the work in our department we have learned that nearly all patients like their massage treatments. In fractures we prescribe massage for nearly all cases and also for many other conditions, such as myalgias, torticollis, sprains (all sorts), neuritis, arthritis, spastic conditions, edema, and constipation.

### VIBRATION.

Vibration is oftentimes soothing treatment and pleasing to the patient. In most cases, however, massage serves a more satisfactory purpose. Mechanical electric vibrators are more effective than hand manipulation.

### EXERCISES.

We do not hold a brief for the therapeutic value of "Swedish Movements", nor do we prescribe the "Daily Dozen" type of exercise in our physiotherapy department. However, corrective exercises are important in our work. Our fractures receive passive motion just as early as we think the fragments will not be disturbed by it. Where the fracture involves joints, we often direct passive motion to be given at once. When the union permits of active motion, we carefully instruct the patient in exercises to be pursued at home to help correct the disability. Corrective exercises are of value in many other forms of disabilities which come to the physiotherapy department.

### SUMMARY.

The development of the Physiotherapy Department at the Hackensack Hospital has resulted from the whole-hearted coöperation of the attending physicians. One and all, they have been interested in the growth of this department of physical therapeutics, and have recognized its value by referring a large number and variety of patients for treatments.



Our methods and conclusions are therefore the results of the collective experience of practically all the physicians on the staff of the hospital. We believe our results in these hundreds of cases warrant the statement that physical therapeutics offers many definite and valuable agents for the relief of disease.

## IS CIVILIZATION ADVANCING?

ALEX. MACALISTER, M.D.,  
Camden, N. J.

(An address to the Raymond C. Thoirs Post, American Legion.)

In casting about for the subject on which to address you, in answer to your invitation, I concluded that we are all interested in the question whether the human race, that is ourselves and the people about us, is really improving morally and mentally. In other words, is civilization advancing?

Before I go into a general discussion of the question, I want to remind you that while many of us are fascinated by history we generally fail to draw any conclusions from our reading. That is a mistake too often made, for, despite all the contradictions we find among different historians, there is a thread of evidence clearly discernible in all the volumes of written history. That thread of evidence is to the effect that certain causes send the human race into decline, or periods of decline, from which it finds its way back to higher ground as the result of other causes. You have all seen the newspaper diagrams of prices—how they rise and decline. Such a diagram will show a line wavering, but ascending, and then suddenly taking a drop and going down into a depression, or sort of valley. History may be illustrated by such a diagram, but with this difference: While the line goes down many times in the course of centuries, it reaches a higher level, or peak, every time it goes up; showing a net gain for the race, despite all its reverses or periods of decline. Incidentally, I want to remind you that civilization is practically in its infancy.

We had better stop here and agree upon a

definition of the word "civilization". Just what do you and I mean by that word? What is the present-day condition we call civilization? Well, it is: (1) The physical comforts we have; the things that make life enjoyable. (2) The assurance of personal safety, or social order. (3) The opportunity to learn more and advance still higher in the scale of comfort and power. We must be very modest in the use of the word "impossible". None but a fool, or a bigot, will use that word today. We are only at the margin of scientific discovery. For proof of that, observe the wonders of radio communication. Those wonders have been in the air since time began, but we are just learning how to recognize and use them. Fifty years ago nobody could have been convinced that a man proposing to talk over hundreds and thousands of miles through the air without wires was sane. He would have been ridiculed and, possibly, locked up as a lunatic.

Now, despite the flood of events every year, every decade, and every century, we can say confidently that we know some of the causes of periods of depression in human history. We can even classify human history, as far as it has gone, into the 3 periods of savagery, barbarism and civilization. We know that like causes always produce the same effects. Napoleon attempted to conquer all Europe, but he was defeated by a coalition of other powers. The Kaiser attempted to conquer the world, but *he* was defeated by a coalition of powers. The thoughtful student of history can usually predict the probable result of such outbursts of tyrannical ambition. When Napoleon seemed about to become the master of all Europe—when his armies were sweeping everything before them—the Emperor of Austria sent to the aged Baron Thugut for advice. The old man said: "Tell the Emperor to make peace at any price. The existence of the Austrian monarchy is at stake; the dissolution of the French Empire is not far off." Six years later Napoleon fell, and—as Victor Hugo said—was placed in a cage. The Kaiser might have profited by Napoleon's experience, if he had been a sane student of history.

Despite all the turnings of human nature, all its idiosyncrasies, we can fairly well pre-

dict events in the field of history, although the interpretation of history is far from being an exact science. It is somewhat like medicine, in that respect. Your physician must carefully observe every particular case, for he never finds two individuals exactly alike. Still, he knows that the processes of health and disease are the same in every human body, and so he draws practical inferences.

So, amid the mass of facts in any particular period of human history, we apply the question: What degree of comfort, security and intellectual freedom had the people of this period? And, right there, apart from the rise and fall of kingdoms and governments, we find that the race is advancing. Look up the household furnishings of your grandparents, and their means of travel, and compare them with your own. You smile, of course, in pity. Now, take up the industrial conditions in England less than a century ago, and compare them with the industrial conditions of today. You are amazed, and probably indignant, at the conditions imposed upon working people of less than a hundred years ago. Well, your posterity, a hundred years hence, will smile in pity, and perhaps wax indignant too, when they read of the conditions upon which we pride ourselves today.

The underlying cause of civilization is the desire for improvement. Man learned, early in his history, that the earth was a vast treasure house for him, but that he must work to secure its riches. Work taught him new methods, and opened up new prospects for him. The invention of gunpowder enabled him to put down his oppressive rulers, while the invention of the printing press spread intelligence, and banished ignorance and prejudice. Then the invention of labor-saving machinery made him less dependent upon agriculture, which had been his chief means of subsistence.

The very essence of progress is *doubt*—doubt that we know it all, or have the best form of anything. But, with all our doubt, we should cling to another element of progress, and that is individual possession of what we have earned. Your communist would have all participate in all the products of labor,

regardless of individual merit. We know enough about human nature to know that when we wipe out individual possession, we discourage individual initiative and discovery. When we refuse to let a man keep what he has earned, we are striking at the very root of human society. And human nature invariably revolts against confiscation of the products of individual labor, whether the confiscation comes from some kindly autocrat or a communistic government. The two Irishmen who had listened to a communist speaker during their lunch hour, finally realized that. Mike was sure that he believed in communism, but Pat said to him, "Mike, if ye had two houses, would ye give me wan?"

"Sure I would," said Mike.

"If you had two horses, would ye give me wan?"

"Sure," said the generous Mike.

"If ye had two goats would ye give me wan?"

"Well," said Mike, scratching his head, "I'd have to think about that. Ye see I have two goats now."

Whence do men get their visions of better things, and greater possibilities? I leave you to judge, but I want to point out to you that while the tide of human progress has often been dammed or turned aside by evil characters, it has been as often aided by the appearance of some great and good men. Reflect a moment upon Abraham Lincoln as compared with Napoleon or Nero. Look up the character and career of Joan of Arc. Give a little thought to such questions, and you will not escape the conclusion that there is a tendency to betterment in human history for which man alone is not responsible. Still another phase of progress should receive your attention, and that is the part played by certain races. Why were the Jews selected, or rather why and how did it happen that they gave us the elements of the purest religion the world has ever known—the religion under which mankind has advanced as never before? Why and how is it that the Anglo-Saxon race is the teacher of savage races, going to the very ends of the earth and raising up people who, in their native state, were little better than the



animals? Why was it left to the Anglo-Saxon race to become the missionaries of civilization to all their fellow-men? At the close of the nineteenth century, the Anglo-Saxon race held one-fifth the area, one-fourth the population and one-third the wealth of the globe. Why, when we know that gray brain matter, and brain capacity, is pretty much the same throughout mankind?

Why was it left for the Anglo-Saxon race to sing with burning zeal:

"From Greenland's icy mountains,  
From India's coral strand,  
Where Afric's sunny fountains,  
Roll down their golden sand,  
From many an ancient river,  
From many a palmy plain,  
They call us to deliver  
Their land from error's chain."

Man is slowly climbing from the animal state toward the angelic state. He is far, very far, from being an angel, but occasionally, in flashes, he shows angelic traits. But, the question recurs, whence comes his desire for perfection?

How shall we prevent a decline in our civilization? Attempting to answer that question, I should say, first, by preserving absolute freedom of thought, speech and print,

barring, of course, incendiary and inflammatory attacks upon safe and sane instruments of progress, such as our government. Let us have freedom of discussion, remembering—as Thomas Jefferson said—that "error ceases to be dangerous when truth is left free to combat it". Let us learn to reason, rather than fight. We are too prone to fight, and so delay civilization or send it into a dark valley of despair. From the year 1496 before Christ to the year 1861 anno Domini, there were 13 years of war for every year of peace. Secondly, let us locate the dangerous elements in our population, and Americanize them and civilize them. We have among us a vast horde of foreign-born. They are not inherently bad, but they can be swayed for the bad as well as for the good. We are neglecting them—holding them at arm's length—when we should be getting acquainted with them, and learning how we may influence them for the good. They can be made a mighty power for the perpetuation of all the good things we have, and the pursuit of better, or—used by crafty politicians and disloyal agitators—they will drag our civilization down into a decline from which it may take centuries to recover. Let us see to it that these people learn the best about our civilization, and the first step toward that is to be friendly with them, and so learn how we may impress them.

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### WHERE IS HEAVEN?

Where is heaven? Not afar  
Hid away behind a star,  
Not beyond the sculptured granite,  
Not upon another planet,  
Not in some celestial clime  
After centuries of time,  
Not a million miles above us,  
But among the hearts that love us,  
Not away across the seas  
But in moments such as these,  
Not among the distant places  
But among familiar faces—  
Anytime and anywhere  
You can find your heaven there.

Is it only in the skies?  
No . . . in little children's eyes,  
In the friends that we have found us,  
In the laughter all around us,  
In the joys of every day,  
In our work and in our play,  
In the task we are pursuing,  
In the good that we are doing,  
In our loyalty and truth,  
In the heart's eternal youth,  
In the roses we have tended,  
In the folks we have befriended—  
Brother, almost anywhere  
You can find your heaven there!

—Douglas Malloch.

## In Memoriam

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WRIGHTSON, James Thomas, of 520 Clifton Avenue, Newark, died of bronchial pneumonia at the Newark Memorial Hospital, March 16, 1927.

Dr. Wrightson was born March 14, 1853, in Easton, Maryland, his parents being William L. and Mary E. Wrightson, direct descendents of the early settlers of that state. Receiving his early education in the public schools, he attended Calvert College and, later, graduated in medicine from the University of Maryland (1878). He was married, March 29, 1891, to Minnie C. Lydecker, of Newark, but she died March 30, 1916, the day following their twenty-fifth wedding anniversary, and on November 27, 1924, he married Mrs. Annie J. Johnson, of New York. The second wife, one son, George William Wrightson, and 5 grandchildren survive the deceased.

Dr. Wrightson was a member of the Medical Society of Essex County, and for a time served as its President. He also belonged to the Practitioners' Club of Newark. He formulated the state medical law regulating the qualifications of physicians and surgeons, and was largely instrumental in obtaining its passage in the Legislature. Twice he refused appointment to the State Board of Examiners.

Concerning his public life, the Newark News of March 18 said editorially: "Dr. Wrightson exemplified in unusual degree, during his long life in this city, how a man could make his professional and political activities work together in the public interest. A product of the South, he was naturally a Democrat in his party affiliation. He early displayed an active interest in local political affairs, but never to the extent of overshadowing his professional interests. He kept the two happily balanced. Possessing a convincing persuasiveness, he at times brought warring factions of his party into harmony, to which recognition was given in his election as county clerk in 1893, following service for four years as county physician. He was named as candidate for Mayor against Henry M. Doremus and then was appointed as member of the City Board of Health by the man who had defeated him. In that capacity and in the management of the City and Memorial hospitals he did much to advance the public welfare."

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STEWART, James M., 294 Broadway, Paterson, N. J., died at his home, March 22, 1927, at the age of 77 years. Dr. Stewart was a graduate of Jefferson Medical College, Philadelphia, and was well known as a writer, as well as a physician.



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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if,—

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

## GROUP HEALTH AND ACCIDENT INSURANCE.

A special letter from Dr. Pinneo, Chairman of the committee appointed to deal with this question, will be found on page 254 and should receive your serious consideration. As previously announced, the old plans fell through because a percentage of members sufficient to secure the policy privileges could not be obtained. The committee now offers a new plan, so far as health and accident is concerned, and as this plan does not require so large a proportion of the total membership, it is hoped that a sufficient number will subscribe to make the plan effective. Our impression is that general insurance laws require a minimum of 250 to constitute a "group" to which such insurance may be applicable. There should be no difficulty about procuring that many signatures from among our members, but you will assist the committee very materially in its work if you will promptly signify your intentions in the matter.

## ANNUAL MEETING PROGRAM.

We are informed by the Chairman of the Committee on Scientific Program, Dr. Ralph K. Hollinshead, that very satisfactory progress is being made in the matter of securing authoritative speakers to participate in the several symposiums selected for this year's meeting. He is not ready to make definite announcement of speakers and titles of papers, but we know that he is negotiating with men

of prominence in the scientific world and that his negotiations thus far give promise of complete success.

Have you reserved your room at Haddon Hall for the period of the convention—June 9 to 11—or have you made it from June 7 to 13 so that you may take in the sessions of the New Jersey Hospital Association meeting, June 7-8, and give yourself Sunday at the seashore for a rest after 5 days of scientific feasting? Furthermore, do not forget that "the wife" wishes to come along this year to attend the Woman's Auxiliary to the State Society; you will certainly want her to participate in the organization of that body.

## IN THIS ISSUE.

Among the original articles presented this month you will find an interesting series of 3 dealing with physiotherapy, a subject far too much neglected by the general profession. One of these papers deals with heliotherapy in a broad sense, one with the relation of light rays to a specific affection, and one discusses the entire range of application of the elements—heat, light and water—to treatment of disease conditions. Your attention is particularly directed to Dr. Snedecor's excellent review of practical physiotherapy.

Under "Current Events" you will find a full report of the most recent Tristate Medical Conference, where the subject under discussion was the avoidance of conflict between volunteer health agencies (under lay control), and boards of health and the practicing phy-

sician. With the ever increasing interest of the public in preventive medicine—an interest which the profession inaugurated and desires to foster—it is becoming necessary to consider coördination of lay and professional efforts so as to produce the best results with the least friction and loss of momentum. Much of the matter presented at this conference is worthy of your consideration; and, possibly, you will have some suggestions to offer for solution of the difficulties.

The month's progress in development of a Woman's Auxiliary to the State Medical Society is set forth in a special report, and encourages us to believe that this new organization to aid in our work will be fairly launched in June. If your county society has not yet formed an auxiliary, give the question serious consideration and be prepared to encourage the movement when the secretary reaches your community.

#### POSTGRADUATE STUDY.

Among the suggestions made to the Welfare Committee for establishment of postgraduate courses available to county society members was one which called upon the larger hospitals of the state to utilize their abundant clinical material for such teaching purposes. What has come to be known as the Kings County (N.Y.) Plan has been productive of excellent results in other places.

We are delighted to note that one of our most progressive institutions has put this plan into effective operation and invites the physicians of that region to take advantage of its excellent facilities. The Monthly Bulletin of the Hackensack Hospital, March number, contains the following announcements:

##### X-RAY FRIDAY AFTERNOONS AT 2 O'CLOCK.

In order to make its facilities known and to assist physicians in the interpretation of radiographs, the X-Ray Department will hold a clinical session every Friday afternoon from 2 to 3 o'clock. Dr. R. E. Knapp will demonstrate x-ray plates in correlation with the pathology and then add short talks on the many conditions in which x-rays are of value in diagnosis and treatment. Special mention will be made of the newer advances in gastro-intestinal work, the use of tetra-iodide in gall-bladder diagnosis and oil emulsions to illuminate the bronchial tree.

##### PHYSIOTHERAPY FRIDAY MORNINGS AT 10 O'CLOCK.

In response to many inquiries from physicians who are installing apparatus in their offices or who wish to learn the uses of physical agents, the hos-

pital has arranged for a clinic every Friday morning from 10 to 11 o'clock in the Physiotherapy Department. This field of work is new and growing steadily. The hospital has installed a department with equipment to cover every phase of the work. The number and variety of patients recommended for treatment, now from 30-40 a day, offer such excellent material that the hospital feels it should be made available to any physician who is interested.

Although the department welcomes the visits and inquiries of the physicians at any time, Dr. S. T. Snedecor will conduct a clinic at this hour, with demonstrations of the apparatus, the technic of their applications, and short talks on the many kinds of disease in which physical treatment is of value.

This is an excellent example for other hospitals to emulate. As previously announced, Dr. O'Hanlon, Superintendent of the Jersey City Hospital, is arranging to start some similar series of lectures and clinical demonstrations at his institution. The Staff of the Elizabeth General Hospital is now considering the proposition. At the City Hospital, Newark, Dr. Harrison S. Martland, has been for some time holding a "Medical Conference" each Monday evening at 10 p. m., using the autopsy material that comes under his official observation as City Physician. The many excellent hospitals in this state make it possible to have at least one central point of graduate study in every county, and every member of each county medical society should be cordially invited to attend and should exhibit an active participating interest in these periodic conferences.

The plan is easy of execution. It calls for no special investment of funds. The teaching material is at hand in every hospital. The Staff constitutes an existing faculty, and in assuming the rôle of "teachers"—perhaps one might better say "directing conferees"—the members are not presumptuous at all, not pretending to any special skill as educators, but merely offering to share with their colleagues the opportunity to study medical problems of the day. Incidentally, the teacher of the moment will probably find that the effort to act as *instructor* will make him a better *student* and the knowledge gained by this course will be his recompense for the extra labor.

We shall hope to hear soon that a large number of the New Jersey hospitals have adopted the plan. Will you bring this question to the attention of the Hospital Staff of which you are a member and help to promote the good work in your county?



## Medical Economics

### HOW MUCH IS YOUR FEE, DOCTOR?

(By a California Specialist, Copied from Medical Economics, Illinois Medical Journal, December, 1926.)

"How much is this operation going to cost me, doctor?"

"Well, I am going to charge you, for giving you the skill I have worked 20 years to acquire, and for the knowledge which I have studied years and spent thousands of dollars to gain, as well as for some half dozen hours of my time, used in examining, operating and dressing—for this I am going to charge you the same amount the automobile dealer charged you for taking you to ride in his demonstrator, and talking you into buying one of his cars. He actually spent less time on you than I spent and certainly spent less than I on education and training. As to taking responsibility, he took none—he had nothing to lose except his time and a small portion of his overhead expenses. I had your life in my hands; and there were moments, during the operation, when that responsibility weighed heavily. Do you consider that he rendered you a greater service than I? It certainly cost him less of his vital force to render it. You feel that I am taking great advantage of you when I charge you \$200 for putting your body in the best repair of which it is capable; but you are pleased and happy to pay him \$200 for persuading you to buy his brand of car. I realize that it seems to you that in one case you are paying for personal service, which gives you no pleasure, and in the other case for merchandise you can actually see and feel and which does give you pleasure. But you should also look at it from the viewpoint of the motor car dealer and myself.

"Similarly, for the care I give your wife throughout pregnancy—for the numerous examinations and for the encouragement and heartening I try to give her—for the disturbance of my rest in the dead of night, for the hours of waiting, with eyes heavy for want of sleep—for taking the responsibility of doing the very best for mother and babe and for watching and guiding them through the first ten days of the babe's life; for all this, I am going to charge you the same amount as the piano dealer who talked with you for an hour on two or three occasions, very courteously explained to you the superior points of his piano and finally drew up the contract and made you the sale. You never thought he was asking too much of you, because you never really considered him as asking you anything for his service. You were paying \$400 for

a piano and it did not seem to you unreasonable. If the salesman had charged you even \$10 for his personal services in showing you the pianos, you would have been indignant. But with the impersonal thing, the piano, and its value as merchandise and not as service, you feel no resentment nor injustice.

"You simply do not stop to analyze. You do not realize that you are paying anything for personal service when you buy merchandise. Besides that, when you pay for medical service, you are usually 'paying for a dead horse'. You have already had the relief from pain, or from anxiety over sickness. With your car, you are paying for pleasure which you are going to enjoy or which you are still enjoying. If you were obliged to pay your doctor bill before you got relief from discomfort, you would pay more eagerly and willingly.

"For all the calls I made at your house when you had the flu; for giving my most careful thought as to the best way of managing your illness; for exposing myself to possible contagion, for 6 hours of actual time I spent calling on you and going to and from your home, and for the various supplies I expended in treating you, I am going to charge you the amount which you put into the radio dealer's 'profit account' to compensate him for having placed his receiving set in your living room. Remember, I'm not talking about the cost of the set, but what you paid him to induce you to choose it.

"Am I fair? Or am I an extortioner? For my service to the community year in and year out I am not demanding any more than the head of your bank, nor than your successful realtors or your merchants—often less. I usually work more hours than they do; and I never consider my own comfort.

"Do you really think that I am a 'Grafter?'"

## Medical Ethics

### REFORMING MEDICAL ETHICS.

(Article by William Everett Musgrave, M. D., San Francisco, reprinted from A. M. A. Bulletin, 22:35, February, 1927.)

The flair for reforms seems to be particularly militant and diversified just now. The reformers have spread their net over everything from religion to rice culture. Ethics, morals, manners and etiquette, are under review by such a bewildering conglomeration of advocates that one wonders if Joseph Collins may not be right in his contention that adult infantilism is on the increase; that the land of moronia is forgetting to practice birth control,

or that Mrs. Lot has been melted into an insecticide, with Mr. Lot stirred in for good measure.

Of course, the "wise boys" who are so busy modernizing religion and history, even to revamping the life of Christ, could not be expected to fail in attempts to graft their flaming zeal onto the sturdy old principle of medical ethics.

Medical ethics, they say, are too old—obsolete. They are old. The basic principle is not only one of the oldest of recorded documents, but its tap root reaches back into an antiquity so remote that Hippocrates could not guess its source, and even the versatile H. G. Wells has a hard time explaining it.

Talk to the recent active advocates of reform of these principles and one usually finds that they, like similar reformers of ethics for a hundred generations, would also modify the Golden Rule and many other basic supports of civilized progress. Many of them have a hazy, perverted conception that ethics are synonymous with etiquette, manners or rules of conduct. Few of them ever really studied the principles of medical ethics. They have not well reflected on the word "principle".

If some of those who talk loudest of the inadequacy of these principles to protect them in their particular practical problems would study that illuminating book "The Ethics of Business", by Edgar L. Heermance (Harper), and see the hundreds of other groups of a thousand interests, from the United States Chamber of Commerce to Rotary Clubs, who are building their modern principles of ethics on those of the medical profession, the oldest of all, it might give them pause.

It is discouraging, but nevertheless significant, that wherever the practice of the profession comes into close contact with politics or ultracommercialism there is a clash. There always has been and it is inevitable. But the answer is not for the honest physician, who practices his humanitarian profession, to alter his principles and thus take the very soul out of a wonderful service. Far better stand clean and await the more sympathetic approach of those standards now being unfurled with increasing frequency in business, politics and even government.

It may be that some physicians who have grown old are too impervious to change, but be assured that as the arcus senilis and the "speckling" retina makes vision grow less acute, one of the sweetest pleasures is to watch the proud Christian banner of the aged ethics of the medical profession, illuminated by the inner light of a lifetime of service, still float from the masthead.

## Esthetics

### DOCTORS AS ARTISTS.

We trust that a goodly percentage of our members in the upper part of the state took advantage of the opportunity to visit the New York Academy of Medicine between March 1 and 15, to view the First Exhibition of Graphic and Plastic Arts by American Physicians. Those who did so enjoyed a rare treat. As previously pointed out in the Journal (July, 1926, and February, 1927), French physicians hold an annual exhibition of their work in the realm of the fine arts. This is the first attempt of American physicians to show in a strictly medical grouping their own artistic efforts, and, as the exhibition was essentially a local one, not widely advertised and very little effort made to collect material from distant states, the major portion of the exhibits were by New York men. Perhaps it is all the more surprising and pleasing that so large an exhibit could be procured from such a limited territory, and the question naturally arises whether an earnest national canvassing would disclose the existence of a far larger number of artists within the medical profession and bring out a vastly larger exhibition of artistic work. We sincerely hope such a national searching will result from the success of this local effort.

The exhibit represented the work of 78 physicians, of whom 59 belonged to New York City or Brooklyn; Philadelphia was represented by 6; Boston by 3; Seattle, Omaha, Mt. McGregor (N. Y.), Hyannis (Mass.), Superior (Wis.), and Jersey City (N. J.) by 1 each; addresses not given in 4 instances.

The range of art work shown was quite wide: paintings in oil and water color; pastels; etchings; photography; pen and crayon drawing; lithographing; sculpture, in marble and bronze; wood carving; and fine metal craft.

It would require more space than we have at command to describe the many beautiful specimens contained in this exhibition but we cannot refrain from mentioning a few of the most striking ones, at least those which deeply impressed us. Of course the pastels by George Gray, the etchings by Leigh Hunt, and the sculpture by R. Tait McKenzie would have done credit to any art exhibit and these men are quite as well known as artists as they are for their medical attainments. But, how few of us knew that Chevalier Jackson is as good an artist as he is a bronchoscopist; or that Ward Holden is as eminent in the field of art (his series of pastels are masterpieces) as in the rôle of ophthalmologist. Henry



Bancel's water color reproductions of scenes at Montauk, Barnegat and along the Hudson; A. C. Abbot's oil paintings of Vineyard Sound and the Maine Coast; Jas. C. Ayer's portrait studies, in oil; Milton Cohen's small bronzes; F. Wendell Kilmer's portrait photographs of Jacobi, Koplik, Gibney and Kerley; more, all deserving of the highest praise, and any of them would attract attention in the most select galaxy of art. Two remarkable pastels ("Sunset" and "Lake Superior") by Edward H. Muncie, and a series of etchings by Leroy Milton Yale, both artist-physicians now deceased, are deserving of special mention; nothing finer to be found anywhere.

Edgar Burke, of Jersey City, was the sole representative of this state but he did us honor in exhibiting 5 very excellent water colors of pheasants and ducks on the wing.

There must be a considerable number of Jersey physicians who are devoting their play hours to some form of art. How many of you will acknowledge the fact and agree to exhibit specimens of your handicraft at some meeting of the State Society? Let us hear from you.

## NATIONAL ACADEMY OF DESIGN.

*One Hundred and Second Annual Exhibition*  
215 West 57th Street, New York.

Those who missed the Physicians' Art Exhibit may console themselves in some measure by visiting the National Academy's annual showing. Having opened March 23 it will remain open (10 a. m. to 6 p. m. daily, and 1:30 to 6 p. m. Sundays) until April 17. More than 500 pieces of art, the cream of the year's American production, are offered for inspection.

Among many excellent specimens of portrait painting are: one by Cecilia Beaux, the subject unnamed; "The Debutante" by Raymond P. R. Neilson, and "Nineteen", by Henry R. Rittenberg, 2 beautiful paintings of beautiful young girls; "Sisters", a fine piece of work by Lydia F. Emmet; "Portrait of Miss Carter", by Charles C. Curran; "Brander Matthews", by Helen M. Turner, awarded the Maywood Prize; and, of special interest to us, a "speaking" portrayal in oil of "Dr. Edward L. Keyes", by Robert Vonnob.

The number of "nudes" is small but the quality of work exhibited in that field is excellent: Maurice Molarsky presents one that is nearly perfect in drawing and coloring, and the same may be said for: "Autumn", by Sergeant Kendall; "Transition", by Gerald Leake; "The Sea Shell", by Louis Betts; and "Shadow and Light" by Philip L. Hale.

Of the large number of excellent landscapes

and *genre* we can at the moment call attention to only a few: "Sunrise", by Walter L. Palmer, another of his exquisite, delicately tinted winter mornings; "Moonlight Reverie", by E. Irving Couse, quite up to his established standard of Indian paintings; "Joaquin's Boys", by Jerry Farnsworth, awarded the 3rd Hallgarten Prize; "Winter", by Antonio Martino, awarded 1st Hallgarten Prize; "September", by R. W. Van Boskerck; "The Studio Garden", by Horace Brown; "A Corner of the Studio", by Dorothy Ochtman; "On the Delaware", by Daniel Garber, which took the 1st Altman Prize; and last, but by no means least, "Jurassic Cliffs, Zion Canyon", by Howard Russell Butler—indeed the effect of this picture enhanced our desire to visit the same spot and experience the same thrill the artist must have had to bring forth his fine series of paintings of that marvelous National Park scenery.

## Special Article.

### REGULATION OF PHYSICIANS BY LAW.

(Third Article.)

During the present annual session of the General Assembly of New Jersey we have had frequently to listen to the oft-repeated balderdash about "preservation of personal liberty in the choice of a healer" when one happens to fall ill, and about "healing without use of the knife and without administration of drugs". When the Bill designed to license "Naturopaths" was before the House, one of the best known of this state's legislative advocates of medical quackery delivered his annual tirade against the medical profession. Beyond furnishing momentary amusement to his fellow legislators, the speech probably made little impression upon anyone, though it did make at least one listener sorry that a supposedly intelligent, if not educated public official should indulge in such cheap clap-trap. As pointed out in last month's article, the Bill he was favoring at the moment—Assembly 161—covered all the possible, known and as yet unknown, "therapies" of external application; earth, air and water, electricity and colors, exercises and diets, clay, plants and tissues (if we may venture a guess at the meaning of geotherapy, phytotherapy and histology) were to be combined in the armamentarium of the "naturopath", apparently for employment along with a liberal allotment of psychotherapeutics. But, should the "personal liberty" to treat the sick by these measures, and without use of knife or drugs, be

conferred upon the "naturopath" by this proposed law would he recognize the "personal liberty" of other would-be healers to treat disease conditions by the same or similar means? Not at all. Fully one-half of the proposed law—and it was an exceptionally long one, covering 13 pages—was taken up with provisions for limiting or preventing admission to naturopathic ranks or for punishing anyone who should perchance disobey the edicts of the Naturopathic Board. The "personal liberty" plea would end for them as soon as this group had obtained the special privileges its members wanted.

Next to the personal liberty claim, stands the specious, beguiling argument to the effect that "if it does no good it does no harm"; an argument that is equally common and possibly more intollerable. It passes our understanding how anyone above the mental status of a moron can, after all these centuries of the use of drugs and knives, and in the face of daily evidence of the beneficial use of drugs and cutting instruments, proclaim a holy aversion to the employment of such curative agencies under properly recognized conditions; and we are equally dumbfounded when a human being supposedly capable of thinking announces faith in the silly doctrine of the harmlessness of a useless procedure or of no procedure. Doing nothing may, under certain circumstances, be the most dangerous and harmful policy imaginable. Suppose a child, or even an adult, who cannot swim has fallen from a boat into deep water; will doing nothing save that being's life, or will the nonaction contribute to the drowning? Not very long ago a prominent citizen of one of our resort cities died of appendicitis, with rupture of the appendix and fatal consequent peritonitis, while a Christian Science friend sat at her bedside, held her hand and prayed. Can any intelligent, reasoning human doubt that the do nothing policy of the "healer" contributed to the death of that woman? Timely use of the knife would have, in this instance, saved a life of great value to the community. Blind, unreasoning prejudice, together with ignorance of the condition and proper means of dealing with it, backed by application of the argument that prayer will do no harm even if it does no good, did in this event result in the loss of a life. The Standard Dictionary says of *manslaughter*, "it may be involuntary, as the result of criminal carelessness", so such an act or failure to act in a desperate situation is none the less manslaughter when it results in death of the subject individual.

Concerning the use of drugs and instruments, Kelly says:

The administration of drugs is a small and often unimportant part of the practice of healing the sick. There are other important healing agencies. Many diseases are treated without drugs, and have always been so treated, even by those practitioners who belong to the so-called drug school, many of whom have habitually given very little medicine. Massage, manipulation, electricity, radium, the application of heat and cold, baths, diet, exercise, rest, water, suggestion, drugs, surgical operations, climate, altitude, all have their places in the treatment of diseases. Most of them have been used by doctors from the earliest history of man.

#### Great Harm May be Done Without Drugs and Knife.

Ignorance in determining when to apply and how to apply these or any other methods of treatment, or in the failure to recognize grave conditions, constitutes the real danger. Consider the practice of obstetrics as an example. Drugs in this branch of practice may or may not be required in a particular case. But the highest degree of knowledge and skill may often be imperative in the management of even normal cases, regardless of any question as to the use of drugs or the surgeon's knife. There are frequent complications in which the lives of both the mother and the child may depend upon early recognition of important conditions, without respect to drugs or the knife, and in which only the best trained physicians are competent even to respond to a call to examine the patient. Many patients treated by ignorant and unclean midwives recover; but many hundreds die from neglect and ignorant interference, or are made invalids for life. Such illustrations may be multiplied indefinitely. The failure to recognize a contagious disease may subject the public at large to disastrous consequences.

The setting of bones, and many of the most important of surgical operations, are often accomplished without the use of drugs or knife, but require the highest degree of skill, and may not be attempted by an ignorant practitioner without disaster to the individual and injury to the public health.

In the use of electricity, the x-ray, radium, and other therapeutic agents, unaccompanied by the use of drugs or the knife, great injury may be inflicted upon the human body, even death itself.

It is apparent, therefore, how a healer who uses neither drugs nor the surgeon's knife may do great harm to his patient or the public. In his ignorance, if he is untrained in the appropriate and fundamental science, he is likely to overlook grave conditions at a time when everything depends upon their immediate recognition, such, for example, as acute appendicitis, acute Bright's disease, gonorrheal infection of the eye, abnormal pregnancy, or hip joint disease. In all of these and in many other diseases and conditions failure to recognize the existence of the condition and neglect of proper treatment, or application of the wrong treatment, soon allows the patient to slip beyond the hope of recovery. In the beginning of hip joint disease a diagnosis of rheumatism would suggest treatment that would almost certainly make the patient a cripple, or cost him his life.

It has been argued that honest, though ignorant, practitioners would not attempt to treat such diseases, or that patients would not employ such healers in cases of that kind. Such an argument is manifestly absurd. A doctor is called, not knowing what condition is to be pre-



sented to him, by a patient equally ignorant. If neither the doctor nor the patient can make a correct diagnosis (which is always difficult in such cases at the outset) the patient may pass beyond the stage where relief is possible while the healer of limited qualifications is trying to find out whether the disease is one within the range of his manner of treatment.

It is a well known fact that massage, kneading, or manipulation, often works great injury to the human body. Such treatment of white swelling, and kindred diseases, in the care of which complete rest and quiet are absolutely necessary, would result disastrously. In diphtheria and many other diseases such treatment would be equally disastrous.

It is because of the above mentioned facts that we objected to "cosmetologists" being legally authorized by Assembly Bill 177 to remove warts, moles and other blemishes by electricity or other means; ignorance of the anatomic or pathologic state of the condition to be treated, and ignorance of the possibilities of danger attending the application of electricity, makes them dangerous meddlers in the handling of physical abnormalities. Likewise, improper or unwisely applied massage or manipulations may do very serious harm. There was a recent malpractice suit in this state where the evidence submitted seemed to show that meddlesome manipulation had contributed directly to the death of a child. The manipulator escaped punishment for his act but that does not lessen the fact that he and brethren of his tribe are a menace to the health and safety of the community.

(To be continued.)

## In Lighter Vein

"Deacon White," said Parson Jackson, softly, "will you lead us in prayer?"

There was no answer.

"Deacon White," this time in a little louder voice, "will you lead?"

Still no response. Evidently the deacon was slumbering. Parson Jackson made a third appeal and raised his voice to a high pitch that succeeded in arousing the drowsy man.

"Deacon White, will you lead?"

The Deacon, in bewilderment, rubbed his heavy eyes and blurted: "Lead yourself—I just dealt!"

The quickest way for a doctor to lose a patient is to tell her it was only a minor operation.

You can't put anything over on the modern girl. Hit her and she hits back. Kiss her and she kisses back.

### He Dare Not.

Physician: "Tell your wife not to worry about that slight deafness, as it is merely an indication of advancing years".

Husband: "Doctor, would you mind telling her yourself?"—Selected.

## Observations from the Lighthouse.

There are few topics of greater interest to the general practitioner than that of "Peptic Ulcer", and as a very considerable number of papers dealing with that subject happen to have appeared recently we have selected it for this month's review. Neither time nor space permits anything like a comprehensive review of recent literature but we may find sufficient food for thought in a choice from the outstanding articles of the past few months.

### Clinical and Roentgenologic Findings in 332 Organic Gastric Lesions.

In a study of 2225 consecutive histories of patients complaining of gastric symptoms, reported by Maurice F. Dwyer and John M. Blackford (Northwest Med., 25:595, Nov., 1926), 332, or 14.3%, received a diagnosis of organic gastric lesions. These comprised 221 cases of duodenal ulcer, 66 of gastric cancer, 41 of gastric ulcer, 2 of gastric syphilis, 1 gastric sarcoma and 1 gastric hair-ball. Thus, in 80% of this series extragastric abnormalities were the cause of stomach trouble. Gall-bladder disease proved the most common factor, 20.4% of the entire series receiving this diagnosis. This figure was equal to the total number of organic and functional diseases of the stomach and duodenum. Duodenal ulcer comprised 68% of the organic gastroduodenal lesions, and 9.9% of the total series.

The final clinical and x-ray diagnosis agreed in 94.9% of the proved cases. The percentage of final agreement by the clinician and roentgenologist in the diagnosis or exclusion of gastroduodenal pathology depends on the relative standard of proficiency of both. When frequent disagreements occur it can only mean that one is more versed in gastro-enterology than the other. The more patients a clinician or roentgenologist sees complaining of stomach trouble, and the greater the opportunity each has for a surgical check on his diagnosis, the more convinced each will become of the necessity of obtaining a good clinical history before attempting the differential diagnosis of gastric symptoms. Such a history cannot be hurriedly obtained, nor should it be delegated to a minor assistant, as the amount and value of the information obtained from a history depend on the caliber of the one taking it. If a competent roentgenologist is not available, it is better for all concerned to dispense with such an examination and depend upon the clinical history and findings alone, as the haphazard study of the gastro-intestinal tract is worse than none at all and will only tend to confuse the clinician.

X-ray diagnosis is the subjective interpretation of objective findings. Unless the examiner has had considerable experience, unless he has correlated a large amount of clinical and x-ray evidence and has followed his patients to the operating room, he will encounter many pitfalls. He must be a physician practicing roentgenology, not a technician, the proud possessor of a glistening x-ray equipment. A roentgenologist should in practically all cases state that in his opinion, right or wrong, there is or is not an ulcer, and not enter into a long discussion, concluding his report with the supposition that the gall-bladders duodenum or appendix may be at fault. Re-examination, the use of antispasmodics, and the newer methods of gall-bladder examination will usually differentiate these conditions.

The clinical differentiation between gastric and duodenal ulcer is difficult, as many gastric ulcers are atypical and give an indefinite history. Examining the patient in the oblique and recumbent positions will occasionally demonstrate an ulcer not seen in the erect and dorsoventral view. A few years ago Carman called attention to the newer method of examining the posterior wall of the stomach by close observation of the barium meal as it enters the stomach, the palpation of the partially distended viscus in order to determine the presence of a crater on the posterior wall, and the visualization and course of the sulci between the rugae. As approximately one-fifth of posterior gastric ulcers are located in the upper third of the stomach, it behooves the surgeon to examine this region carefully.

Next to duodenal ulcer, cancer is the most frequent organic lesion of the stomach and duodenum; 3% of gastric symptoms in general and 20% of gastric duodenal lesions in this series were due to cancer. In 80% of these patients, cancer had apparently originated in a resectable part of the stomach. Early pyloric obstruction is a fortunate complication in that it brings the patient early for relief. However, over 50% of these cases are inoperable at the time diagnosis is made. The physician himself is occasionally a cause for the late recognition of gastric cancer. The eliminative value of the x-ray in excluding gastric cancer is of greatest assistance to the clinician and often requires more skill on the part of the roentgenologist than arriving at a positive diagnosis. Eight patients consulted the authors on account of erroneous diagnoses of cancer made elsewhere. Careful study showed the error in diagnosis and operation proved it in 6 cases. Pernicious anemia with an apparent filling defect due to spinal pressure accounted for the other two. Failure to examine the patient in the prone position may result in overlooking cancer of the cardiac end of the stomach.

#### Diagnosis of Acute Perforation of Peptic Ulcer.

The initial symptoms of perforation, and those upon which the diagnosis should be made (Charles Gordon Heyd, New York State J. Med., 26:1033, Dec. 15, 1926), are due to the actual mechanical perforation and the chemical assault upon the unguarded peritoneum by the extravasation of gastric or duodenal contents. To wait for the symptoms of subsequent bacterial peritonitis in order to make a diagnosis is to delay until the mortuary rather than the operating room receives the patient.

In abdominal diagnosis it is essential to distinguish the 2 types of pain that are exhibited most frequently in gastro-intestinal pathology. The first type is that of "colic," the pain being intense, sudden, acute, but always intermittent, with intervals of complete relief. It is ordinarily the result of an irritative and functional lesion and is due to hyperactivity of nonstriated muscle fibers with spasm. The second type is acute, sudden, intense, but constant, with no intervals of relief. This type is due to actual inflammation of the peritoneum and is the result of perforation and exudation. In the beginning it is localized in the area of exudation; later it becomes more general. It is always associated with a fixed, tense immobile body posture, in contrast to the restlessness and movement in colic. In these outstanding points of pain differentiation we have the key to diagnosis of acute perforation

of the gastro-intestinal tract. In perforation of peptic ulcer, pain is the outstanding symptom, abdominal rigidity the most distinctive physical sign, and immobility of body posture the most noticeable feature. Time does not permit consideration of laboratory data in arriving at the diagnosis in the early stages.

The diaphragm is an abdominal muscle and is held in spastic rigidity. The respirations are therefore entirely thoracic, of the superior costal type, ending in an expiratory catch, usually accompanied by an exclamation or groan. The face is pale, alert, anxious, with beads of sweat on the forehead. The pulse is hardly accelerated in the first hours of perforation; the temperature is normal or slightly elevated. With each succeeding hour the pulse becomes progressively worse. Nausea and vomiting are so frequently associated with any disturbance of function in the gastro-intestinal tract that they have no place as diagnostic criteria in this condition. The obliteration of liver dullness is an inconstant and late sign, for a distention which will obliterate liver dullness marks a stage of generalized peritonitis. In the early hours there is a marked leukocytosis (16,000 to 18,000) and polynuclear percentage of 80-85. These features should not be taken either for or against the diagnosis, except that their presence would eliminate the anginas and the abdominal crises of tabes.

Differential diagnosis will embrace an elimination of the various forms of angina, acute thoracic disease, cholelithiasis, cholecystitis, acute hemorrhagic pancreatitis, acute intestinal obstruction, acute perforating appendicitis and possibly ectopic gestation. The patient with angina will be restless; in acute thoracic disease respirations are markedly increased in frequency, and a disproportion exists between pulse and respiration, as opposed to the normal parallelism in acute perforating ulcer. The initiatory pain of appendicitis is colicky and there is no catch in breathing. The facies has neither the anxiousness nor pallor nor fear present in acute perforation. Moreover, the patient will localize the point of maximum pain and tenderness in perforation at a point higher in the abdomen than one would be warranted in ascribing to an attack of appendicitis. In addition, physical examination will demonstrate that the area of maximum rigidity is in the epigastrium rather than in the right lower quadrant. The sequence of events in perforation points to a primary upper abdominal lesion with secondary or descending abdominal involvement rather than to the ascending peritoneal involvement of an acute appendicitis.

Gall-bladder disturbance is preëminently a disease of women. A history of previous attacks of biliary colic is all important; the pain and rigidity show a tendency to localize. Acute pancreatitis is, as a rule, found only in thick-set, florid males; pulse is bad from the beginning; the peritoneal reaction and rigidity are localized and epigastric; breathing, while restrained, is without catch. In acute intestinal obstruction there is the etiologic factor of hernia, previous laparotomy, etc.; the pain is colicky accompanied by restlessness.

It is evident that the pathologic conditions which must be differentiated from acute perforation are, by and of themselves, conditions which demand immediate operation. The final word is for early diagnosis and early surgery.



### The Etiology and Pathology of Peptic Ulcer.

In a consideration of the etiology and pathogenesis of a disease in which there is no specific pathogenic agent, the most important underlying factors are the anatomy and physiology of the parts affected (Charles L. Conner, Boston M. & S. J., 195:971, Nov. 18, 1926). The pyloric end of the stomach, including the pyloric antrum and part of the lesser curvature toward the cardia, is subject to the greatest mechanical disturbance. The duodenal bulb forms more or less of a pouch where stasis may occur, and Dr. Charles Mayo has been quoted as saying that stasis is the most important single factor in the chronicity of ulcers. There is also the arterial circulation to be considered, and there seems to be no question but that peculiarities in the blood-vessel distribution around the pylorus, in the lesser curvature of the stomach and the upper portion of the duodenum, have a great deal to do with the formation of acute ulcers, at least. The mobility of the fundus and the comparative immobility of the pylorus and duodenum may enter into the question; and the occurrence of misplaced islands of intestinal epithelium and the distribution of acid cells in the stomach should be mentioned.

The fact that the pylorus is the acid retaining part of the stomach has been made the basis of the corrosion theory of the origin of ulcer. That Sippy believed that acid corrosion is the most important factor in the maintenance of ulcer can be inferred from his treatment. Smithies emphatically opposes this view. In 522 cases of proved ulcer studied by him, one-third were caused by infection, chronic or acute, and over one-third by arteriosclerosis, visceral hypotonic and chronic anemia. Nearly 8% were syphilitic in origin.

According to Stewart, bacterial infection and intoxication are undoubtedly the most important direct causes of acute gastric and duodenal ulcer in man. He found 53 acute ulcers in 1500 autopsies, most of which were associated with such conditions as peritonitis, bronchopneumonia, empyema, pyelonephritis, pericarditis and meningitis. The author has seen 9 acute ulcers in similar conditions and believes that there is plenty of experimental proof to show that these ulcers are hematogenous in origin.

Much of the experimental work cited by Conner proves, he says, if it proves anything, that localized hematogenous infections of the stomach and duodenum are of very common occurrence and the only basis for the high incidence lies in the peculiarity of the blood supply to these organs. The course of the arteries in the submucosa, their rather abrupt ending as mucosal branches are given off, and the lack of free anastomosis in the pyloric region predispose to the lodging of bacteria near their terminations. In addition to those ulcers caused by bacterial infection, acute ulcers have been produced by every conceivable physical and chemical means. There is, however, the second more important problem which has to do with why, having been started, an acute ulcer becomes chronic. There has been a good deal of experimental work in attempts to prove the mechanical functional and corrosion hypotheses, but much evidence exists which does not support these theories. It does not seem to have occurred to any one that the cause might lie within the ulcer itself.

The question of relationship of ulcer to gastric carcinoma is difficult to decide, figures varying

from 71% to 5%. Carcinoma of the duodenum arising from ulcers apparently does not exist.

Ulcers which become chronic begin in the submucosa, spread beneath it, and the sloughing of the mucosa is secondary to this process. These ulcers usually heal, but some become subacute or chronic, probably because of a continuation of the original cause—infection—and are slow to heal because of the great loss of normal tissue, the amount of granulation tissue, the persisting endarteritis and poor blood supply to the part, and its inaccessibility to treatment. An ulcer with such histology would be difficult to heal wherever situated.

### The Diagnosis of Peptic Ulcer by X-Ray.

The accuracy of the diagnosis of peptic ulcer varies with the ability and training of the examiner. According to Ernest L. Davis (Boston M. & S. J., 195:977, Nov. 18, 1926), diagnosis of the average roentgenologist should be 75-80% correct. Peptic ulcer can be diagnosed positively by x-rays when it is located in the stomach so that a niche or accessory pocket can be visualized, and an ulcer in the duodenum can be positively determined when the characteristic deformity of the bulb is shown constant and unvarying. The site of the ulcer is of more importance in its visualization than is its size. Peptic ulcer may exist without showing any direct x-ray evidence, but there may be indirect signs that may be corroborative of clinical diagnosis. The x-ray interpretation of shadows and signs must be consistent with the clinical findings, history being of great importance. The roentgenologist should not forget that he is a doctor, and the more he utilizes his medical skill and clinical ability, the more valuable will be his x-ray interpretations. It is pardonable at times for the roentgenologist to fail to discover a lesion in the stomach, but the subjection of a patient to a needless operation or to the expense and discomfort of long continued treatment on inexact interpretation of obscure x-ray evidence alone, is not readily forgivable by those concerned.

The roentgenologic signs of peptic ulcer may be divided into 2 classes: (1) Primary and practically pathognomonic signs, these being (a) niche, (b) accessory pocket, (c) in the duodenum, constant deformity of the duodenal bulb. (2) Secondary and corroborative signs, these being (a) spastic manifestations, including the incisura, spasmodic hour-glass stomach and gastrospasms, and (b) gastric retention. If it were possible to show one of these positive signs, diagnosis by x-ray would be comparatively easy, but unfortunately in a fairly large percentage of cases this cannot be done. When the site of the ulcer makes it impossible of demonstration, as in the posterior wall, particularly in the pyloric portion, if one can make a roentgenologic diagnosis at all it must be based on indirect phenomena. The same is true in cases in which the ulcer has not eroded the gastric wall to a sufficient depth to make a demonstrable projection from the gastric lumen to produce either a niche or an accessory pocket. Gastrospasm is the greatest single obstacle in x-ray diagnosis of gastric ulcer yet some of its varieties may be of diagnostic assistance. The incisura, an indentation of the gastric wall opposite an ulcer, practically always seen in the greater curvature, is generally believed to be due to irritation of the ulcer, causing a spastic contraction of the circular muscular fibers in its plane. When it is constant and persistent it is almost positive evidence of the exist-

ence of an ulcer, although a persistent incisura on the greater curvature which is not influenced by belladonna is sometimes indicative of ulcer in the duodenum. Spasmodic hour-glass, which is really an exaggeration of the incisura, may be the result of ulcer or may be reflex from some source outside the stomach. The value of all spasmodic manifestations depends on the ability to differentiate those arising from causes within the stomach from those that are reflex from causes outside the stomach. Antispasmodics and reëxamination will, in the majority of cases, determine this. As spasm of any sort disappears under anesthesia, the surgeon, upon opening the abdomen and not finding the hour-glass contraction reported, may conclude that the x-ray diagnosis was wrong, but a careful search should reveal the ulcer. A true incisura must be constant and stationary and must persist after the patient has been given antispasmodics to physiologic effect.

A residue from the barium meal at the 6 hour examination is a fairly common accompaniment of gastric ulcer, but a residue alone is not sufficient for diagnosis, as there are numerous other causes for retention. This sign is often of value, however, if taken in connection with other signs.

Constant deformity of the bulb is the mainstay of diagnosis of duodenal ulcer, although it must be admitted that real or apparent deformity may be due to other causes. The indirect signs of duodenal ulcer which are manifested in the stomach may be important. Hypertonus is a common feature of nonobstructive ulcer, enlarged stomach, antiperistaltic waves, hypermotility and gastrospasm are helpful secondary signs. When the obstruction is pronounced it is difficult to fill the bulb and establish the fact of deformity. In that event the combination of a large stomach of normal contour with hyperperistalsis and a 6 hour retention is quite as diagnostic of duodenal ulcer as is bulbar deformity. The rate of frequency between duodenal and gastric ulcer is estimated as three or four to one.

(To be continued in May Journal.)

## Medical Book Reviews.

(Department Director, Royce Paddock, M. D.)

CHEMOTHERAPY WITH SPECIAL REFERENCE TO THE TREATMENT OF SYPHILIS. John A. Kolmer, M. D., published by W. B. Saunders, 1926.

However useful this book may be, and it would seem very useful, it is too large to be dispatched in any short space. Something can be said, however, about its 1100 pages which are filled with a great deal of detailed information, both practical and experimental.

When it is realized that the treatment of syphilis is not entered upon before the eight hundredth page is reached, it may seem that too much space is given to the more theoretic and experimental portions confined to the first four-fifths of the treatise. But this is a monograph. It aims at completeness, to fit itself out as a work which will answer the many queries that come to the mind of the doctor who attempts to treat and overcome infectious disease by means of drug therapy.

That the subject is complex, is selfevident. The principles must be applied to 3 variable quantities—the patient, the drug, and the pathogenic microorganism—the problem being to kill the latter with little or no injury to the former.

The reverse effect has unfortunately been accomplished by neglect of these principles. Since they are not yet well enough known to be expressed simply, all the possible combinations of problems in chemotherapy must be touched. Hence the regrettable size of the volume. Repetition is frequent, but may also be excused, since it saves much time in a work where reference is the object and especially in a subject as encyclopedic as this.

The main conviction of the author appears to be that useful and powerful drugs, such as arsphenamin, should not be employed without the most thorough and painstaking preliminary laboratory investigation, involving several different kinds of animals and tests *in vitro* to determine the power of the drug to do injury to the parasites and not do injury to the blood and other tissues. His work is a plea for thorough knowledge of the pharmacology and toxicology of the drug to be used, and all this he provides in great detail, with especially praiseworthy directions as to the minute details of procedure, as well as excellent illustrations of the same.

He readily admits, however, that laboratory tests are by no means final, and that the therapeutic test prevails. Many drugs would appear useful in *in vitro* tests, but when used on the patient, lead only to disappointment. More fortunately, the reverse is also true in some cases, a fact which has saved some compounds, such as mercurochrome, which possess relatively feeble bactericidal powers *in vitro*, and are relatively effective *in vivo*.

A great variety of bacterial diseases are briefly considered before the spirochetes are mentioned. Although the results of chemotherapy in these conditions are in general disappointing, several bright spots, such as the use of gentian-violet, locally in pleural infections, are emphasized.

In the portions which present the facts to be considered for an intelligent view of the problem of treatment in syphilis, the author is especially painstaking and also plausible. His main point is that this disease must be divided into 2 stages from the standpoint of treatment. In the early stage, the spirochetes are not entrenched in the tissues; in the late stage they are. Many of the facts here presented are gathered from experimental rabbit syphilis. Arsphenamin and nearsphenamin are the reliable weapons for the early stage, though not without other drugs altogether. In the late stage, the problem is much more difficult, and many means and much persistence must be employed. Mercury is given great prominence by the author in the treatment of the late stages, as well as bismuth and the iodides. He insists on the impossibility of outlining a treatment for the individual case; every case must be treated on the basis of the general condition of the patient who presents himself. The organs affected by the disease process; the nonsyphilitic defects which he shows, such as nephritis or cardiovascular disease; the mental status of the patient—all must be observed and considered before the course of treatment is decided upon. One of the main ends in view being the avoidance of neurosyphilis, if possible, the importance of cerebrospinal examinations and the technic of intraspinal medication is dwelt upon.

One point of great importance is adequately emphasized, but perhaps may not receive adequate recognition in the general body of information. A negative Wassermann reaction is only really negative if the test is done with a technic sufficiently sensitive to detect the slightest grade



of spirochetal activity. Since technics vary according to the laboratory, the author advocates a test such as the one he has worked out for universal adoption. Although a real standardization, involving identical technic in different workers is obviously impossible, some such standardized test would seem to be indicated for the benefit of the patient and doctor in deciding when treatment may be considered sufficient. At least a more sensitive universal technic would lead to more complete treatment and fewer late manifestations of the disease in treated cases. This small detail of the years of treatment which the patient must undergo, that is, the Wassermann reaction which must be obtained negative on several occasions to be conclusive, assumes great importance when the dangers of insufficient treatment are considered. If in many cases insufficient treatment is worse than none, as some authorities believe, the sensitiveness of the Wassermann test assumes major importance in the treatment. For in the opinion of the author, the slightly positive reactions in treated cases are to be interpreted as a sign of spirochetal activity.

The best route of administration in the use of arsenicals, mercury, bismuth, and the iodides is clearly defined, with the reasons for each determination, and especially the small points of technic are brought into prominence by the admirable attempt at completeness. The typography does not achieve the level of excellence set by the author, although the binding and illustrations do.

#### RECENTLY ANNOUNCED NEW BOOKS.

**Tumors of the Glioma Group.** J. B. Lippincott Company; 175 pages; 108 illustrations; price \$5.00. The authors' names, Bailey, Percival and Cushing (Harvey), give sufficient guarantee that the subject is treated thoroughly and in accord with the latest discoveries in pathology and surgery.

**Surgical Treatment of Goiter.** C. V. Mosby Company; 350 pages; 150 original illustrations; price 8.50. Willard Bartlett, of St. Louis, the author, offers what appears to be an epoch marking report on one of the surgical problems now receiving world-wide consideration.

**The Thyroid Gland.** C. V. Mosby Company; 83 pages; price \$1.75. A résumé of today's knowledge concerning the thyroid, as prepared by Charles H. Mayo and Henry S. Plummer for the Fourth Beaumont Foundation Lecture; authors who have had unusual opportunities to study the vagaries of this important gland.

**Shell Shock and Its Aftermath.** C. V. Mosby Company; 173 pages; price \$3.00. Norman Fenton, who served with U. S. Base Hospital 117, A. E. F., has studied the records of 3000 shell shocked American soldiers and presents a book which should be of special interest to physicians, psychologists and social workers who have to deal with postwar medical problems.

**Old Age Deferred.** F. A. Davis Company; 540 pages; price \$4.00; by Arnold Lorand, M. D.

**Heart and Athletics.** C. V. Mosby Company; 150 pages; price \$3.00; presenting researches upon the cardiac influence of athletics, reported by Felix Deutsch of Vienna and translated by L. W. Warfield of Marquette University.

**Manual of Normal Physical Signs.** C. V. Mosby Company; 215 pages; price \$2.50. A compilation, by Wyndham B. Blanton, M. D., of the normal physical signs as compared with diagnostic signs of pathologic conditions.

**Diseases of Middle Life.** F. A. Davis Company; 2 volumes; price \$16.00 complete; by Frank A. Craig and 22 Associates, specialists in dealing with particular diseases or with certain parts of the body.

The last 4 of the above mentioned books promise interesting reading for physicians engaged in periodic health examination work.

**Descriptive Atlas of Visceral Radiograms.** C. V. Mosby Company; 330 original x-ray plates, well reproduced; price \$12.00. A. P. Bertwistle, of Leeds, and E. W. H. Shenton, of Guy's Hospital, London, have endeavored to show the relationship between roentgenologist and clinician in considering visceral disease conditions.

## Lay Mirror Reflections

### IRREGULAR "HEALERS".

The daily papers of February 24 carried the following important news item:

"The State Board of Regents revoked today the license of Dr. Leonard Lincoln Landis, proprietor of the House of Health in New York City. The action was taken on the unanimous recommendation of the State Board of Medical Examiners, which investigated charges against Dr. Landis made by Dr. Augustus S. Downing, Deputy Commissioner of Education.

"Dr. Downing's charges alleged eight specific cases of fraud and deceit in the practice of medicine. It was also charged that Dr. Landis had been convicted on two occasions of misdemeanors, and that he had employed unlicensed practitioners in treating disease.

"Dr. Harold Rypins, Secretary of the Board of Medical Examiners, said the Landis case was the most important of its kind that had ever been brought before the State Education Department. He declared the decision of the Board of Regents would strike a telling blow at quackery in the medical profession."

Comment upon the course pursued by Landis, and the advertising campaign of his "House of Health" seems uncalled for in view of the wide publicity of his trial given by the public press and therefore familiar to most of our members. What effect his conviction will have upon his own future career or upon those who may attempt to impose upon the public with similar schemes is a matter of greater concern. The New York Times commented editorially upon this problem in its issue of February 25 and those remarks are worth repeating here:

The State Board of Regents at Albany has taken away the medical license from a well-known proprietor of a "House of Health" in this city. The complaints about his methods were varied, and certainly seem to justify the action of the Regents. But, though this was an important case, the Secretary of the Board of Medical Examiners seems to have been unduly sanguine in predicting that it would have the effect of largely cutting down "quackery in the medical profession". The very "doctor" in question had snapped his fingers at the Regents in ad-

vance, and had said that it would not make a particle of difference to him if his license were taken away. He would go on making money out of the trusting public just as before.

It is an undeniable fact that irregular practitioners have greatly increased in number in this country, parallel with the efforts to improve medical education, to get rid of dubious schools of medicine conferring questionable degrees, and to stiffen the requirements for a medical license. In 1924 the Association of American Medical Colleges appointed a committee to make a special study of the whole question of medical education and medical practice in the United States. Last month it issued a preliminary report, in the course of which it stated that "between 1910 and 1920 there was an increase of 116 per cent. in the number of healers of various kinds other than medical practitioners and osteopaths. In all probability the numbers have continued to rise since 1920." It is an old and curious story. Alongside science we always have ignorance raising its unabashed head. So long as a great multitude continues to have superstitious ideas about the causes and cure of disease, so long will healers flourish in the land, whether they are or are not permitted to call themselves doctors.

## Communication.

### GROUP LIFE, ACCIDENT AND HEALTH INSURANCE.

To the Editor of the Journal:

At a recent meeting of the Board of Trustees a committee consisting of Drs. Mulford, Morrison and myself were appointed to make a critical study of the Accident and Health Policy secured from the Commonwealth Company of Philadelphia by the Committee on Insurance of the House of Delegates, upon which Dr. Pinneo, as Chairman, has done such commendable work.

We have gone over the matter very carefully and, after having secured from the company several very important modifications and advantages, we have no hesitancy in recommending it very highly to our entire membership.

The policy, as now amended, is far more liberal than that of any of the standard companies with whose offerings we were conversant. These liberal provisions, coupled with the extremely low premium rate for the group, make it very desirable for every member, and we earnestly hope that it will be put in force for the entire State Society.

LUCIUS F. DONOHUE.

(Letter from the Special Committee on Group Insurance.)

The special committee on Life, Accident and Health Insurance, appointed at the last convention of the State Medical Society, has been working unceasingly: (1) To secure the 75% quota of members required by the propositions of the Prudential Life and the Commercial Casualty companies; renewed extension of the time limit were arranged so as to afford members every opportunity for information and action at their autumnal County Society meetings. (2) When this quota failed to apply, and the companies refused all propositions without such quota, the committee turned elsewhere, for the sake of the hundreds who had applied, and determined to

secure, if it were possible, some insurance. (3) Finally, from the Commonwealth Casualty Company of Philadelphia, a Health and Accident policy plan has been secured which replaces that of the Commercial Casualty Company. This new policy, now offered to members, has all the advantages of the original proposition plus the following concessions:

(a) No quota is required, and present applicants may get their certificates promptly after accepting this proposition.

(b) The premium for ages up to 50 years (next birthday) is only \$60 (\$10 less than negotiated before).

(c) The premium for ages up to 60 years (next birthday) is \$70.

(d) The principal sum and the weekly indemnities are doubled for travel accident, i. e. "within a public vehicle which is licensed for the regular transportation of passengers" (not aerial machines) "or in an elevator used for passenger service only".

The Commercial is the oldest Casualty Company in Philadelphia, writes more of such insurance in its home territory than any other company, and is all that can be asked in strength, reliability, and accessibility for adjustments.

#### The Policy.

The principal sum is \$5000 payable for loss by accident, of life, or both hands, or both feet, or both eyes.

Other indemnities are: For loss, by accident, of one hand or one foot, \$2500. For loss, by accident, of one eye, \$1500.

For total disability from accident \$50 weekly for 52 weeks.

For total disability from illness \$50 weekly for 52 weeks.

For partial disability from accident \$25 weekly for 26 weeks.

For partial disability from illness \$25 weekly for 4 weeks.

Partial disability may be such from the beginning or may follow total disability to the limit of 52 weeks in all.

For accident in a public passenger vehicle, as defined above under (d), the principal sum, also all the indemnities, are doubled.

Indemnity begins on the eighth day of disability, from either accident or illness, it being understood that the first 7 days are not covered.

Claims are payable within 30 days.

Notification must be given of accident within 20 days, and of sickness within 10 days; of death from accident, immediately.

No percentage quota of members is required.

No medical examination is required.

All members in good standing and repute, of any age, are eligible.

The policy is noncancelable during any policy year and is renewable if the company's experience on the group is not unfavorable. Any change in rates or terms must be negotiated with the Society. "All claims will be paid by the Company to members through the Society and all premiums for membership in the group must be paid to the Society. The acceptance or renewal of membership or the rejection of membership will be referred to the Society."

The benefits under the policy are not contingent upon, nor affected by, any other insurance the holder may carry.

Not covered are: Veneral diseases; (not innocently acquired in the practice of medicine), operations for chronic, preëxisting, ailments; racing,



avation; disabilities resulting from injuries intentionally self-inflicted or poisons intentionally taken.

The annual premium is \$60 for ages up to 50 years; \$70 for ages 51 to 60 years; \$85 for ages 61 years and over.

The premium, on entry or renewal, is that for the attained age. It must have been actually paid for the insurance to be in force.

To apply for this insurance a member must sign the application card provided for the purpose, giving the date required, and mail it to John E. Denner, Montclair, N. J. Members who applied before must do the same to show their approval of this new policy.

The committee, with gratification, submits this offer of unexcelled Health and Accident Insurance to the members of the State Society, assuring them that the proposition is entitled to their unqualified approval. We confidently expect that not only those who have made application but increasing numbers of others will seize this opportunity to secure a type of insurance which every doctor needs, which is offered at such favorable rates, and which covers such a wide range of possible contingencies from accident and illness.

The success in securing an Accident and Health Insurance proposition encourages the committee to continue negotiations for a Group Life Policy also, and results of our efforts will be reported in due time.

Throughout the months which the committee has been working the experience and help of our agent, Mr. John E. Denner, has been invaluable, his loyalty and zeal could not be excelled and success is largely due to him.

For the committee,

FRANK W. PINNEO, Chairman.

## TISSUE DIAGNOSIS IN THE OPERATING ROOM.

(A letter from Joseph C. Bloodgood, M.D., Laboratory of Surgical Pathology, Johns Hopkins Hospital, Baltimore, Md.)

I will consider it a courtesy if you will publish this letter in your journal, as I am anxious to come in correspondence with pathologists and surgeons interested in the immediate examination, by frozen section, of tissue in the operating room and the immediate cover-slip studies of smears from all fluids and pus.

Microscopic examination of stained frozen sections has been possible for more than a quarter of a century. The staining of unfixed frozen sections with polychrome methylene blue and other stains is a well-established procedure. In many operating rooms in university and other large and small surgical clinics, provisions for these immediate diagnostic studies have not only been available, but have been in practical use for years. While, unfortunately, on the other side, this diagnostic part of the operating room is conspicuous by its absence in many clinics.

Before 1915 it was rarely necessary for a surgeon well trained in gross pathology to need a frozen section to help him in diagnosis at the operating table. Since 1915, and especially since 1922, the public has become so enlightened that malignant disease, formerly easily recognized either clinically or in the gross, now appears in our operating rooms devoid of its easily recognized clinical and gross appearance and can only be properly discovered by an immediate frozen

section. The majority of operating rooms are not equipped or prepared for this new diagnostic test.

The first essential part for this diagnosis is the technician—one to cut and stain the frozen section, or to make and stain the smear. The second is a pathologist trained to interpret it. It is possible for the surgeon to be all three in himself, and some young surgeons are so equipped. In others it is a dual combination—surgeon and pathologist in one, and the technician. More frequently it is three—operator, technician and pathologist. It makes little difference whether it is one, two or three individuals, providing each has the equipment and training for this most difficult diagnostic test.

In the address as chairman of the Surgical Section of the Southern Medical Association, I discussed biopsy, and this paper has been published in the Southern Medical Journal, (20:18, Jan., 1927). A reprint of this paper will be sent to anyone on request. The chief object of this letter is to come in contact with surgeons and pathologists who are sufficiently interested in this problem to discuss it either by correspondence, or by attending a meeting in the surgical pathologic laboratory of the Johns Hopkins Hospital, either the Monday before, or the Friday after the meeting of the American Medical Association in Washington.

Schools for technicians may have to be established in different sections of the country, and the surgical pathologic laboratories of the medical schools and the larger surgical clinics should offer courses in this tissue diagnosis, so that surgeons may learn to become their own pathologists, or pathologists learn the particular needs of the surgeon in tissue diagnosis in the operating room.

It is quite true that when the majority of the public are fully enlightened, the surgeon will see lesions of the skin and oral cavity and the majority of subcutaneous tumors when they are so small that their complete excision is not only indicated, but possible without any mutilation. The chief danger here will be a surgical mistake—the incomplete removal of an apparently innocent tumor. There is no necessity here for biopsy. If a proper local excision is done, no matter what the microscope reveals, that local operation should be sufficient. But when lesions of the skin, oral cavity and soft parts are extensive and their complete radical removal mutilating, then there must be biopsy to establish the exact pathology.

In tumors of the breast and disease of bone, for years the diagnosis could be made clinically or from the gross appearances at exploration. But now in an increasing number of cases the breast tumor must be explored, and the gross pathology of this earlier stage is not sufficiently differentiated to allow a positive diagnosis. Immediate frozen sections are essential to indicate when the complete operation should be done. The same is true of the earlier states of lesions of bone. The x-rays no longer make a positive differentiation between many of the benign and malignant diseases, for example, sclerosing osteomyelitis and sclerosing osteosarcoma.

We must not only specialize in tissue diagnosis, but we must organize this department so it will function properly in as many operating rooms as possible in this country.

Then there is a final and most difficult question to consider. I doubt if it can be settled. What shall be done in those operating rooms in which there is no technician to make the sec-

tions and no one trained to interpret the microscopic picture? How can a piece be excised or a tumor removed, for example, from the breast, and this tissue sent to some laboratory for diagnosis without incurring the risk of the delay to the patient. I have discussed this point in my paper on biopsy.

### **VIOLATIONS OF MEDICAL PRACTICE ACT.**

(Report from Dr. Charles B. Kelley, Secretary of the Board of Medical Examiners.)

Following is a list of the cases tried by the Board since our last letter:

Oct. 13, 1926, John Kashkevich, M.D., of Newark, N. J., pleaded guilty to practicing medicine without a license, and paid the penalty.

Oct. 22, 1926, W. Campbell Bewley, of Riverside, N. J., an unlicensed chiropractor, was found guilty of practicing medicine without a license, and paid the penalty.

Oct. 5, 1926, Wm. S. Winters, of Palmyra, N. J., pleaded guilty to a charge of practicing medicine without license, and paid the penalty.

Oct. 22, 1926, Jennie Levin, of Burlington, N. J., pleaded guilty to charge of practicing medicine without a license.

Oct. 1, 1926, Walter H. Stansbury, Freehold, N. J., pleaded guilty to a second charge of practicing medicine without a license.

Nov. 7, 1926, Mary E. Baily, an unlicensed midwife of Salem, N. J., pleaded guilty to practicing midwifery without a license.

Nov. 19, 1926, Schuyler C. Pew, of Perth Amboy, N. J., pleaded guilty to practicing medicine without a license.

Nov. 18, 1926, Jacob D. Joseph, of Elizabeth, N. J., pleaded guilty to practicing medicine without a license.

Nov. 23, 1926, Moses Goldman, a druggist of Newark, N. J., pleaded guilty to practicing medicine without a license. Hgalmir Johansen, a masseur of Newark, N. J., was tried on a charge of practicing medicine. Decision was reserved and the defendant died before the decision was rendered.

Nov. 3, 1926, Edward K. Biggard, an unlicensed chiropractor of Pleasantville, N. J., pleaded guilty to a charge of practicing medicine without a license.

Oct. 27, 1926, Anthony Zally, a druggist of Jersey City, N. J., pleaded guilty to practicing medicine without a license.

Dec. 7, 1926, Jacob Ginsburg, a masseur of Union City, N. J., pleaded guilty to practicing medicine without a license.

Dec. 7, 1926, Edward Barden, an unlicensed chiropractor of Jersey City, N. J., pleaded guilty to practicing medicine without a license.

John Lini, proprietor of a beauty parlor in Trenton, N. J., paid the penalty for practicing medicine without a license.

Harrison Schoetzau and George Norr, druggists, of Hoboken, N. J., have paid a penalty for practicing medicine without a license.

In November, 1926, Kathryn Marsland, a masseur of Atlantic City, N. J., pleaded guilty to a charge of practicing medicine without a license.

Oct. 22, 1926, Frona Bowen, of Riverside, N. J., pleaded guilty to practicing medicine without a license.

Jan. 13, 1927, Lawrence R. Palese was found guilty of practicing medicine without a license, in the Camden District Court, and on refusal to pay the penalty was committed to jail for 20 days.

In Jan., 1927, Fred A. Kern, an unlicensed chiropractor of Hawthorne, N. J., paid the penalty for practicing medicine without a license.

Jan. 21, 1927, William Bailey, of East Orange, N. J., pleaded guilty to a charge of practicing medicine without license, and paid the penalty.

Feb. 7, 1927, Gertrude Brown, an unlicensed midwife of Bordentown, N. J., pleaded guilty of practicing midwifery without a license.

Feb. 11, 1927, David Shaw, an unlicensed chiropractor of Paterson, N. J., was found guilty in the Passaic District Court of practicing medicine without a license, and on the same day Arthur A. Legg, an unlicensed chiropractor of Paterson, pleaded guilty to charge of practicing medicine without a license.

Louis Adler, of Newark, N. J., was tried in the First District Court in Newark, on a second charge of practicing medicine without a license, and found guilty.

Charles D. Baudendistel, a licensed chiropractor and a licensed osteopath, of West New York, N. J., was tried in the First District Court of Jersey City, on a charge of practicing medicine without a license, and found guilty.

March 11, 1927, Alson J. Walker, an unlicensed chiropractor of Orange, N. J., was tried in the Orange District Court on a second charge of practicing medicine without a license, and found guilty. On refusal to pay the penalty, he was committed to jail for 200 days.

Dec. 9, 1926, Morris Klar, a druggist, of Jersey City, N. J., was tried in the First District Court of Jersey City on charge of practicing medicine without a license, and found guilty.

Jennie B. Nunn, of Camden, N. J., was found guilty, on a charge of practicing medicine without a license, and on refusal to pay the penalty was sentenced to jail for 10 days.

Feb. 11, 1927, Bernard Rymcr, an unlicensed chiropodist, practicing in Ridgewood, N. J., pleaded guilty to a charge of practicing chiropody without a license.

Sept. 17, 1926, Arthur Boerner, of Paterson, N. J., pleaded guilty to a charge of practicing medicine without a license, and paid the penalty. On Feb. 11, he again pleaded guilty, to a second charge of practicing medicine without a license, and was committed to jail for 1 day; he had spent 7 days in jail between the time of his arrest and his trial, making a total sentence of 8 days.

Oct. 19, 1926, James Benton, an "herbalist", was found guilty of practicing medicine without a license, but inasmuch as he had spent 5 days in jail between the time of arrest and trial, no additional sentence was imposed.

Sept. 23, 1926, the Board revoked the license of Josephine Passens-Berger to practice midwifery.

Dec. 16, 1926, the Board revoked the license of Mary Srahol, also known as Mary Srohol, to practice midwifery.

Nov. 18, 1926, the Board revoked the license of Anna Haller-Buonocore to practice midwifery.

The license of Jozefa Rdzak-Chweij to practice midwifery, which was revoked on Nov. 6, 1924, was restored on Feb. 24, 1927.



## Current Events.

### TRISTATE MEDICAL CONFERENCE.

The fifth Tristate Medical Conference convened at the Hotel Pennsylvania, New York City, February 26, 1927, at 10:30 a. m., with Dr. George M. Fisher, President of the New York State Medical Society, in the chair. The members present from the several states were as follows:

New York: George M. Fisher; James E. Sadlier, President-Elect New York State Society; Daniel S. Dougherty, Secretary; Joseph S. Lawrence, Executive Officer; Frank Overton, Editor; Thomas Farmer, of Syracuse; Nathan B. Van Etten; and Wendell C. Phillips, President of the American Medical Association.

Pennsylvania: Arthur C. Morgan, President-Elect of the State Society; Frank C. Hammond, Editor; and Wilmer Krusen, Director of Public Health of Philadelphia.

New Jersey: James S. Green, President of the State Society; J. B. Morrison, Secretary; Henry O. Reik, Editor; and Samuel B. English, Superintendent State Tuberculosis Sanatorium.

In opening the meeting, Dr. Fisher expressed appreciation of the attendance of members from Pennsylvania and New Jersey, and his regret that this might be the last conference he would attend, because of expiration of his term of office as President of the New York Medical Society. He believed that these conferences had already resulted in much good and predicted that they would become an important factor in the development of medical affairs affecting these 3 states. Referring to the program for the day, he stated that two new developments of work in the New York Society would be spoken of: first, the establishment of a Public Relations Committee, and second, the formation of a special committee to study the present state of knowledge regarding cardiac diseases. The first named committee is to deal with the relations between medical and lay organizations concerning themselves with public health work; the second committee is to investigate the whole subject of cardiac diseases but with special relation to recommending measures for their abatement. He anticipated that both committees will bring forth topics for consideration by future conferences of the State Society officers.

The topic selected for consideration at this conference was the relationship between lay health organizations and medical practitioners, and was introduced by the following paper:

THE ASSISTANCE VOLUNTARY AGENCIES CAN RENDER  
PHYSICIANS IN THE PROMOTION OF PUBLIC  
HEALTH ACTIVITIES.

Thomas P. Farmer, M.D.,

Former Commissioner of Health  
Syracuse, New York.

President Fisher has already referred to the appointment by the State Medical Society of the Public Relations Committee. While I am highly honored to be a member of that committee, I have been somewhat amused by the name of it. It seems to me at the present time that everything is "public relations". Yesterday I went to the Rotary Club at home to hear Dr. Burgess Johnson, who has just been made Professor of Public Relations at Syracuse University, and I thought he would define what his job was and in that way I

might learn something of what our duties would be, but he talked about everything else except public relations and I came away knowing just about as much about the subject as you probably will know after hearing my talk on public relations.

I don't think there is any doubt about the assistance the private agencies can give the profession and I think as I go along with my discussion you will find that I have accepted that to begin with. The point will be to find where the dysfunction of the private agencies comes in and how they sometimes interfere where they should give assistance.

Any person who has had anything at all to do with health work in an official capacity knows how dependent we are on the private agencies for an efficient health program. Discussion of the activities of lay health organizations is not limited to any locality at the present time nor to any group of doctors; and the interest evidenced in it shows its importance. I think we can easily say at the present time that it is the most important economic problem to the profession in general. It is not a new problem. The advantages of the lay organizations are recognized, of course, but the disadvantages of their uncontrolled work are a matter of great importance. I remember hearing the late Commissioner Kelly, of Massachusetts, speaking in 1923 to a conference of health officers, discuss two or three of what he thought were the important matters of health procedure at that time. One subject was the activities of health organizations, and he said that much as some health officials might be dissatisfied with the work of the lay organizations, they were here to stay and we would have to accept them. The health people have accepted that fact and I think they are no longer debating with lay organizations as to their activities. The medical profession has not been aroused so early but they are aroused at the present time and I question the conclusions given by Dr. Kelly. I question whether the health organizations will go along just as they have been doing if conditions do not change somewhat. I do not want to be misunderstood at the beginning. I believe the health lay organizations have been of great value, they have done excellent work and we are greatly dependent upon them. They have certainly contributed to the achievements of public health by supplementing public funds, and they have been able to undertake work that has been outside the domain of public health departments, or these departments have been limited by statute from doing certain things the lay agencies could come in and accomplish, or they could supplement the work already started. We have been able, at times, to start new work which the lay agencies have been able to take over later.

I also want to be thoroughly understood that I am in agreement with the lay organizations in their criticism of the medical profession at times. I know the ultraconservatism of the medical profession and that there has been some work which its members should have started, and which the lay organizations would have been glad to have them start, and I therefore feel that the organizations could properly criticize the medical profession for failure in that direction.

Now there are some lay organizations that perform their work without any cause for criticism at all. And when a lay organization can do that sort of thing and work in conjunction with the medical profession and with the public officials, they are fulfilling their highest requirements. We must also give credit to some of the organizations which we are inclined to criticize. They have done

splendid work and our criticism of them is not in any combative spirit. It is not in any sense of meanness, but it is rather to restrain them from doing things which eventually will be injurious to them because we must preserve them for the good of all concerned. I do feel that there is a danger to the lay organizations themselves when the work does not go along harmoniously. I think they may get into a jam with the medical profession, and they will simply kill themselves if they do. It may be also that the medical profession may resent their actions when they overstep the bounds, so that the attitude of the medical profession would likely be such that they could not go on with their work. These things may influence the people who contribute to private funds and their support, may be withdrawn. So that while Dr. Kelly said those organizations will go on, anyway, we must consider these things, and what I say in criticism will be for the benefit of the lay organizations as well as for the benefit of the medical profession.

We naturally take pride in the accomplishments toward obliteration of typhoid, tuberculosis and diphtheria, but being a part of our everyday life and the expected sequence of events, we are not greatly amazed by this progress. On the other hand, the social worker who sees the death rate drop from 19.8 per 1000 people in 1880 to between 12 and 13 for the past few years, with the very low rate of 11.6 in 1921; the infant mortality rate cut to one-third in 20 years; the tuberculosis death rate cut in half; diphtheria, typhoid fever, scarlet fever and small-pox practically stamped out; and when they are told the average span of life in this country has been increased 15 years in the past 50; and with those various activities being measured mostly in the last 20 years, in which they have come into the picture, they naturally conclude that they have played a very important rôle. We will admit that they have played a part, but they are apt to overvalue their part and that has tended to have them overstep their limitations. When these limitations have never been possible of accurate definition, they finally encroach on the domain of activity of the medical profession.

I think one of the most important things is to realize the difficulty of defining a lay organization. In fact, the good that has come from them has been due in part to the fact that they have not been able to define their own limitations. But what has been an advantage is apt at times to be a disadvantage. They encroach upon the medical profession sometimes by showing dictatorial policies and manners. They interfere with local conditions oftentimes and show a tendency to socialize medicine. They destroy previously existing coöperation with the medical profession. Some of these organizations have also exhibited a tendency to operate at a very high overhead cost, with high salary and unreasonable personal expense accounts, which do not justify their existence.

I think we must consider especially this question of socializing medicine. Some of the lay organizations say that they have never seriously considered state medicine. I am not speaking of all lay organizations, but the ones that I refer to are the ones which do those things. In some states these organizations may not show any tendency toward state medicine. I know of some organizations which deny any attempts to such procedure, but, nevertheless, we hear statements from individuals and we see writings from people connected with them which substantiate the belief that they have thoughts of state medicine.

Then the question comes up of socializing medicine in the way of operative clinics. The Child

Welfare Clinic is open, the Prenatal Clinic, and the Venereal Clinic. Of course, the venereal clinic and the tuberculosis clinic must not be suppressed. On the other hand, I think there is a tremendous abuse of these clinics. Where the disease is in a communicable stage the patients should be admitted for public health reasons, but when the old syphilitic or the old tuberculous patient comes there to be treated, when there is no chance of his communicating the disease and he is coming purely for his own personal relief, I do not believe it is in that sense a public health clinic; and that is where the abuse of the clinic comes in.

The coöperation of the profession is, of course, very important in any preventive medicine work. I have here a little discussion by Dr. Rankin which I might read, a talk which was presented at the International Congress of Social Welfare in Washington 2 or 3 years ago.

"Just as medicine has been extending its lines farther and farther away from the cure of existing disease and toward the anticipation of disease, so public health, with its initial interest and work largely restricted to prevention, has found that much of prevention is predicated on treatment and that to realize a further reduction in mortality and morbidity rates, its program must insist upon arrangements for the more adequate treatment of disease, disease in reality as well as in anticipation, for, after all, about the only difference between cure and prevention is chronologic. The public can no more renounce its interest and its rights in the treatment of disease than the medical profession can afford to restrict its work entirely to cure.

"In the development of medicine and public health the work of disease prevention and disease treatment have become so closely related that it is impossible to separate the two. Physiology fades into pathology, health into disease, as the green leaf of spring becomes transformed into the brown death of autumn. The unoccupied field in medicine, of health promotion and disease prevention, cannot be separated into two parts, one involving the problem of cure, the other that of prevention. The two problems are inseparable.

"The interrelated, inseparable problems of disease prevention and treatment cannot be dealt with by two separate forces, one responsible for cure and the other for prevention. Separation of forces means lack of understanding and absence of coördination between workers whose tasks are much the same; it means friction and conflict with resulting harm to both medicine and public health. Combination of forces means understanding, coördination, and increased efficiency for both branches of medicine.

"But there is a much more important reason why two forces, one a group interested in prevention and public health and the other in the private practice of medicine, cannot occupy this field of disease prevention and health promotion, and this more important reason is that, practically speaking, there is but one group which is or can be made anything like adequate for dealing with this problem. That group is the medical profession. If the health officials of this country should undertake to organize, train, and enlist a corps of workers sufficient to deal with the present field of disease prevention and health promotion, they would have to contemplate a force of from 100,000 to 200,000 professionally trained officers; furthermore, that force would be engaged in a task so intimately related to the work of private practice, with so much overlapping, that there would be constant friction, conflict, lost motion and inefficiency. There can be



but one well-organized force in the field of vital conservation, and that force must, both by reason and necessity, be made up of health officials, always greatly limited in number, and the rank and file of the medical profession.

"As the work of health officials and physicians cannot be separated, but must be coördinated, an understanding as to related responsibilities is essential. A proper division of responsibilities will be predicated on the general principle that the members of the medical profession shall perform such items of public health service, both of a curative and preventive character, as their training and number make possible, and that for such items of service, they shall be paid a reasonable compensation, the medical profession taking into consideration, in determining what is reasonable compensation, the difference between bulk work and individual case work, between wholesale and retail prices; and, further, that health officials, representing the public interest, shall so organize and restrict their personnel as to provide for the medical profession rendering the aforementioned services, the health officials devoting themselves largely to enforcement of health laws, particularly quarantine, passing upon items of service rendered by the profession for which remuneration is claimed, and in so organizing social and professional forces as to enable these forces to more completely occupy and hold the field of disease prevention and health promotion."

I think Dr. Rankin has covered very well the importance of the coöperation of the medical profession and the health organizations. Sometimes, when the lay organizations go too far into the domain of medical practice, they do so without realizing it. As the physician is a very busy man he cannot be burdened with a great number of reports and with questionnaires following one after another and there are many times when there is full justification for his not having reported some disease. Something may have come up, such as lack of accurate laboratory diagnosis, for which the man might be perfectly excusable, and a man who is a medical director would understand those things.

A question was raised Thursday at our meeting, where the Secretary of the New York State Medical Society objected to one statement to the effect that differences came up between the medical profession, whose interests were practically entirely limited to curative medicine, and lay organizations, whose active interests were in preventive medicine. The Secretary objected to that because he felt that the medical profession was just as much interested in preventive medicine as the lay organizations and that the lay organizations should be described as "others who are also interested in preventive medicine"; I think that is correct. If you take the time to go over the work the medical profession has done in preventive medicine, you will be surprised at the results. When President of the Academy of Medicine in Syracuse, I reviewed the work that the Syracuse Academy had done toward improving public health, and it was surprising to me to find the amount of time they had given to it. Out of 30 addresses given by presidents of this organization, 17 had to do with public health problems, and the minutes of the meetings record 197 instances where addresses or discussions concerned this subject and where definite action in such matters had been taken; this was in addition to reports from its public health committee. The Academy had called 5 special meetings, because of urgent local conditions, for purely public health work. They had as

guests distinguished men from all fields of public health work and on several occasions were addressed by workers in this field from out of town, including professors in the leading universities of the country.

It is important to remember that the control of the city's milk supply, the pasteurization of milk, the establishment of a municipal contagious disease hospital, a psychopathic hospital, a county tuberculosis sanatorium, a meat inspection service, a county morgue, a county home hospital, dental clinics and open air schools, as well as the formation of those parts of the city charter dealing with public health work, are the result, largely, and in some cases, wholly, of their advocacy by this medical organization. On January 21, 1902, the Academy advocated medical inspection of schools and on March 18, 1902, of itself arranged to carry this work on by its own members, who gave their services gratuitously. As a result of its tenacious persistence in this matter, the city finally took over this work in 1906. The Academy arranged for a special investigation on the subject of ice pollution, and paid for an honorarium to the bacteriologist who made this study.

These instances are cited simply to show that the physicians did interest themselves in public health work. I think we do not get the drift of this thing, that a great many lay organizations at the present time are intensifying the propaganda—and I am sorry to say some medical men interested in lay organizations take that same attitude—that the medical profession has no interest in public health work. Now, I believe the medical profession should carry on some propaganda to establish the fact that they are, and have always been, interested in this subject of public health work. I also feel that the medical profession should take a firm stand on the question of socialized medicine, and where any attempt has been made by a lay organization to carry on socialized medicine and at the same time deny it, I think the cards should be laid on the table and they should be told what they are doing.

To come back to the question of the physician's work in public health, I think the lay organizations have talked so much about it that they really have some of the physicians believing they were never interested in public health questions. The active interest of the medical societies in civic medicine is certainly very large and I think work such as we are doing in New York State, with the Public Relations Committee, where we will talk over these matters and iron out all the difficulties, will do more than anything else to accomplish the desired results. I think it is well to have committees such as the Heart Committee to outline the policy of the work to be done by the medical profession. The lay organizations should welcome this; it will save them a great deal of embarrassment and will make their work also more effective.

I feel also that the work of the lay organizations, which is absolutely necessary and upon which we are dependent, and for which we must give them all the glory they are entitled to, must be continued. Now if we can all work together certainly this will be a very happy and beneficial work.

*Dr. Lawrence:* Will Dr. Farmer give us a definition of "lay organization".

*Dr. Farmer:* I would take that word "lay organization" and put it back to a private health organization. As a matter of fact, I am on the Board of Directors of one of these lay organizations myself, and I want to make it clear that I am attacking an organization that I am a mem-

ber of. I would prefer the term "private health organization", but to be headed by physicians. I am glad you have brought that point out. I believe the physicians should seek representation in such lay organizations.

*Dr. Fisher:* Would Dr. Farmer give the conference some few words as to what the Public Relations Committee has started out to do in the state of New York?

*Dr. Farmer:* The Public Relations Committee in the state of New York was appointed by the President of the Society at the request of the State Charities Aid Association. Didn't they make the suggestion?

*Dr. Fisher:* No, that was my own suggestion.

*Dr. Farmer:* Well, the object is to regulate the work of private organizations so that they will work harmoniously with the medical profession.

*Question:* What constitutes the membership of the committee?

*Dr. Farmer:* There are 5 members besides Executive Secretary of the Society, Dr. Lawrence. That number is pretty well divided up so that the state is well represented and most of the men on the committee are men who have had experience with the workings of the organizations and know where difficulties exist, and I believe that committee will be able to straighten out any problems that may come up. It would seem advisable, I think, if other states are having any of these difficulties, that such a committee be appointed because, as I have said, we need these organizations; we must admit their great assistance and we want them to continue. We do not want them to have any friction with us, we don't want them to suffer because of any friction, and we want them to work so that we may have 100% efficiency.

*Dr. Fisher:* Will Dr. Farmer tell us something of their work in connection with the State Charities Aid?

*Dr. Farmer:* We have had several meetings. We have had two meetings of the committee with the State Charities Aid in order to go over some of these problems, and then we had a subcommittee take up the question of the County Health Unit, which is an intensified piece of health work and sometimes I am afraid that it is discouraging to the county societies to take it up. The attempt there, of course, is to show in a short time the value of a considerable amount of money. We have only had this one county health unit started in the state. It has been slow to get under way, but through this committee and the Committee of the State Charities Aid Association we have worked out a plan to give to the State Society and then to have the county medical societies take an active part in the work. The law provides for a Board appointed from a list of 10 from the county society. If the county society will do that, we feel that it will not be long before New York State will be covered with any number of efficient health units in which everybody will be working together. I really believe that our committee has made the first dent in that drive.

The President introduced Dr. Wilmer Krusen, Director of Health, Philadelphia, to speak on this question for Philadelphia.

*Dr. Krusen:* I appreciate the opportunity of discussing these very valuable topics which are of interest to the official health officer as well as to the physician and to the community. While Dr. Farmer was talking I was reminded that it was a very wise man who said that "we can choose our friends but the Lord gave us our relations".

We have public relations and we cannot eliminate them. We have to consider them and cooperate with them. We may not like our relations—sometimes we do not—but no health officer can escape this contact with the public. He must have their cooperation or their criticism. Sometimes their criticism is constructive and valuable; sometimes there may be an ulterior motive in the criticism which comes to public health officials.

First, I wonder whether I might discuss a man I have never seen; that is the ideal superman health official, and the characteristics which he possesses. I have never seen him in my entire circle of health workers. In the ordinary course of events it takes 20 years for the knowledge of a disease to spread through society and become a matter of common thought. You can take the propaganda for the elimination of tuberculosis: We had to educate the public; we had to gain the support of the thoughtful public before the reduction of tuberculosis was brought about. And that is true today in the fight against diphtheria. We know that it is a preventable disease. We know that death from diphtheria can be avoided if the parents will permit the doctor to do what he wants to do, and we can eliminate the disease by 1930.

I had an opportunity a few months ago to give a charge to a man who was being installed as the president of a university. I read a book by President Thwing, of the Western Reserve University, on College Presidents, and I found that all of the qualities which a college president should possess might be applied to a man who has to deal with the public in public health work. One of the chief qualities was that rather polysyllabic word of "conciliatoriness". Conciliatoriness is a thing which the health officer must possess if he wants to have the highest degree of cooperation from the doctor and from the layman. He must have knowledge, he must have initiative, and then sometimes these lay organizations get ahead of the health officer. Some of these very well educated men and women, inspired possibly by their family doctors, get ahead of us and we have to catch up, but it is our duty to catch up and to lead the procession if we can.

A good thing to do, I find, is to invite all of these lay organizations that you can to hold their meetings in your own office, and then you know what they are doing. I don't think these lay organizations go away from us with the idea of harming public health work. I think they are sincerely interested, but are mistaken, untrained. And, after all, no public health work has ever been inspired except indirectly by some discovery of a doctor. It is the doctor who has studied and taught the subject. You can go all the way through the Gorgas work, or Dr. Osler's work when he started to fight for better water in Baltimore, and you will find there has been some doctor who has inspired the organization of nearly all these health agencies, and the health officer, as a recent writer has said, must preserve the golden mean between zeal and timidity. If he becomes too aggressive and goes ahead of public sentiment, he won't get anywhere. If he is a coward and is timid, he won't get anywhere.

What have you educated your public to expect of your Public Health Officer? How far are you going to back him? Do you have confidence in his judgment? Do you have confidence in his honesty and in his sincerity? That is a personal question and you cannot get away from it in the practice of medicine nor in the broader field of the work. There are the personalities of the men leading the movements coming into contact with the person-



ality of the local health officer in any given community.

I have been very much interested in Dr. Farmer's problems and in his presentation of them, because we are all up against the same conditions. I made a list of the different types of health agencies in Philadelphia, and I use this because I think it is typical of New York City, Atlantic City, Elizabeth, or any other city. They simply vary in localities as to magnitude. First, there is the Visiting Nurses Society; and, by the way, today as never before you must consider the rôle of women in public health work. This Visiting Nurses Society has a body of rich women supporting it, but they have an Advisory Committee composed of doctors, University of Pennsylvania professors and others of that type, who keep them on the right track. We have the Philadelphia Health Council, which is our leader in the tuberculosis health work. They not only coöperate in the reduction of morbidity and mortality from tuberculosis, but they do a lot of work in industrial plants and are always ready to coöperate with the City Department of Health. We have our Child Health Association. We are planning for one week in May to make a crusade for child health. The chairman is a prominent physician, but the meetings of the committee are held in the office of the Director of Health and the Director of Health is cognizant of every thing that is being done along that line.

We have a crusade now to raise our quota of men for the international prevention of cancer. Yesterday and day before there were parlor meetings held in the homes of what we call in Philadelphia our society women, women who have possibly never taken an interest before in public health work. The proper man is heading that movement and at these meetings there were talks given in parlors to groups of women on the prevention of cancer. On the last day of April our Public Health Committee, which is another combined doctor and layman organization, is preparing to celebrate Public Health Day. They are going to have for the topic of all the addresses to be made in the different clubs and in factories, the prevention of cancer. Last year we emphasized diphtheria.

Then we have our National Association for the Prevention of Blindness, and the Association for Child Guidance. Then we have an organization which has been a very valuable one in looking after the milk supply of a great city. We have a Tristate Dairy Council, made up of men who are interested in milk production, associating with the farmers, the milk producers, and they aid us in keeping our milk supply at the highest point possible. They send their inspectors around. If milk is sent in from a certain farm that is not up to the standard, they do not discourage the farmer, because we need the milk, but they send a man there who has been taught how to take care of cows, barns, flocks, etc., and in that way aid the farmer to bring his milk supply up to the standard. There is a great voluntary agency which is helping us to protect our milk supply. The Housing Association is sometimes critical because we do not eliminate all of the houses in the slums of a great city, which is practically impossible just now. The Red Cross, an international organization, works in conjunction with the Health Department.

Then there is the Philadelphia Hospital Association. We are trying to link up all the hospitals in the city of Philadelphia with our health activities, particularly in their cardiac clinics and diph-

theria clinics. We have an Association of Day Nurseries, and are trying to link them up with the Health Department. In 1916 we had an epidemic of infantile paralysis. That was 10 years ago, but a band of wealthy women, called the Emergency Committee, appointed a committee to take care of this work. We had 1001 cases in the epidemic in 1916. Now, they took the names of all of the children who lived and were paralyzed in any way, and have undertaken supervision of the training of those children in order to get them back so that they are able to function.

We have women's clubs of all types and all varieties. One of the most important things, in which the American Medical Association is interested now, is the woman's auxiliary to the county societies. In every county medical society the doctors' wives, daughters and mothers are allowed membership in this association and these women have pledged themselves to work only on projects that are approved by the county medical society. You know a man's wife or mother is a pretty good fighter for him and all these women are active, not only in the woman's auxiliary of the county medical society, but their influence is stretching out into all these other kindred organizations.

Social service organizations: The social service worker is a problem. They sometimes assume obligations and do things that they are not trained to do, but nevertheless they take the place of the home missionary, who used to go into the home, leave a tract and read a chapter in the Bible. The social service worker is now the link even between the patient in the hospital, with a communicable disease, and the family. If the wage earner is in the hospital sick with pneumonia and his family is hungry and suffering, that reacts on the patient. Now, if we can do something to satisfy that man that he has some one interested in him, we will expedite his recovery and reduce his number of hospital days.

Then we have our Psychologic Clinics. We are wondering just now why so many high school and college students are committing suicide, and some study along this line is much needed. We have our Playgrounds Association. In an overcrowded city that is growing too rapidly for its building plans we have to have breathing spaces and if the Playgrounds Association coöperate with the Health Department it brings about the best results. We have also the Parent Teachers Association, and the Mouth Hygiene Association, for we are realizing more and more the effect of dental diseases on health.

Dr. Farmer has spoken of the dispensary abuse. People go there in fur coats, diamond rings and limousine cars to get free treatment. The public health center should be used only by those who cannot afford to pay the family physician, and only for diagnosis and treatment of transmissible diseases. I agree with Dr. Farmer absolutely in regard to the treatment of old advanced cases of syphilis, that the clinic is not the place for them. It is a preventive clinic if supported by the state. Otherwise, state officials will come into antagonism with the doctor who is trained and should be paid to treat those cases.

I have not discussed all of Dr. Farmer's points but I want to say again, as Chairman of our Public Relations Committee, that I believe these committees have a definite function and a definite usefulness. We are establishing in every county medical society a committee on public relations that will direct the work of voluntary organizations. They will direct them or convert them if they get

off the track and become antagonistic to what we believe to be the right attitude toward public health work.

Dr. S. B. English, Superintendent of the State Tuberculosis Sanatorium, Glen Gardner, N. J., was introduced by the President, to speak for New Jersey.

*Dr. English:* After listening to Dr. Farmer and Dr. Krusen I fail to see why there should be much further discussion. My experience, I am frank to admit, has not been as broad as that of Dr. Farmer nor the Health Officer from Philadelphia. Most of my experience in health work has been along the line of tuberculosis only.

I imagine that of all the free agencies or private agencies of New Jersey, our so-called State Tuberculosis League is probably the biggest free agency in the state, spending \$250,000 a year in addition to contributions. Of course, that is the agency, it seems to me, of all the various agencies, which must demonstrate its worth. We have built up a branch of that organization in every county in the state. We have never had the success that the Health Officer of Philadelphia has had in leading all of those agencies into the Health Officer's office. We have had at various times considerable friction of opinion between the profession and the private agencies over matters of policy. Of course, it is the fashion to blame the practitioner for everything that has gone wrong. I have been personally of the opinion that the job of our State Tuberculosis League was to demonstrate the need of it. It is pretty hard to get the money for demonstrations. I have always thought our money should be spent chiefly in the line of demonstration and that after demonstrations have been made our work should be turned over to the official agents or to the medical profession. In so far as possible we have been trying to do that, although it has been pretty difficult to hold down the lay organizations, and have them understand that when they have demonstrated a certain project they shall not go ahead and clean it up.

We are having right now over in Newark some operations by the local Tuberculosis League. About 3 years ago we had a considerable sum of money to spend over there and we thought it would be a good thing to get hold of all the tuberculosis in Newark if we could set up machinery whereby we could go into every factory and examine all the employees. We had a conference with the Medical Society of Essex County, which was represented by Dr. Morrison and several others, and we worked out a scheme whereby, with their permission, we would go in and make a physical examination of all the employees that we could get in at least 100 factories in Newark. It has worked out pretty well. We went to the managers of these factories and got their permission to hold the clinics. We met with a fairly good degree of success in the matter of willingness on the part of employees to submit to examinations. We did find some tuberculosis, but not nearly as much as I had expected to find. An attempt was made to make the examinations somewhat broader than the ordinary chest examination. We advised the factory managers as to the possibilities and we tried referring the patients to their family physicians to have their conditions attended to.

It has always seemed to me that we should have more coöperation from the individual family physician in that work. We examined from 2000 to 3000 employees and sent them to their family physicians. We also wrote their family physicians, and I think that out of 3000 letters written we received

only about a half dozen answers. Now the lay organization takes that, not as they should, but as evidence of the fact that the family physicians are not interested in this work, and then they want to set up clinics and go ahead and do the treatment. We are having an argument of this nature at the present time. They now want to start some dental clinics with the idea of cleaning up the teeth of these people, rather than try to have the dental defects cleaned up by clinics that are already established.

A great many of the lay organizations are imbued with the idea that we would like them to go out and do the work and that we would like to get the credit for it. But isn't it due largely to the fact that we do not appreciate the doctor's ideal? As some one has already said, the doctor is a busy man and he is interested chiefly in treating sick people, and the sicker they are the more interest he shows. He takes it as a matter of course that these other things should be done and he doesn't expect himself to be called upon to write long letters expressing appreciation which the lay organization or private agency thinks it should receive.

It seems to me that the medical profession should make a more concerted effort, as has been done in Philadelphia, apparently, to have more to do with the operation of these so-called private associations. I know that if a goodly number of our private organizations over in New Jersey did not have doctors, either on their board or associated in their management, we could expect nothing else but difficulty, and I believe that the problem would be much more easily solved if some concerted effort could be made whereby we could have more medical management in the active work of these so-called lay organizations.

#### General Discussion.

*Dr. James S. Green, Elizabeth, N. J.:* I came here today more to be instructed than to give any views of mine. It seems to me there is one point which has been emphasized that is the keynote to the whole thing, and that is to have the county medical societies, each one, have a Public Relations Committee actively working so as to coördinate the work of these private associations. Of course, we all agree as to the value of these lay organizations and their enthusiasm ought not to be lost. Their enthusiasm should be directed, and it seems to me that the doctor's idea of having a committee in each county society is the proper way to steer this enthusiasm into the right direction.

*Dr. Joseph S. Lawrence, Albany, N. Y.:* May I say first that Dr. Krusen has proved today to my satisfaction that there is an exception to what has been, I believe, commonly accepted, that it is impossible for a practicing physician to be a health officer. I heard a very prominent health man say that recently. He said that it is impossible for a man to be a practicing physician and a health officer; they are deadly enemies of each other. I believe there are a good many people who think that is really true. I had a growing feeling of that kind myself until I heard Dr. Krusen speak here today. Now I will modify that again and go back to think that it is possible.

There are two points of view, however, and I think they are not frequently enough recognized by the medical men themselves. There is the point of view of caring for the public on a broad scale, regarding less the particular individual, overriding him if necessary in order to get across a great idea, while the physician from his earliest days in the



medical school is taught the importance of that individual, and he frequently doesn't get beyond the individual, and so he cannot realize the other fellow's viewpoint, and the other fellow grows impatient of him.

A very powerful agency working in this state started the antituberculosis work—the State Charities Aid, we call it. I don't know that it has any function outside of New York State. I do know that it is in touch with organizations of a similar type in other states and exchanges personnel and literature with them. There is also the Millbank Foundation. A large sum of money was left to a group, some of whom are members of the State Charities Aid Association, for the purpose of demonstrating in some particular area what an efficient health service can do in reducing morbidity and mortality rates. At first it was not definitely determined to have these demonstrations in New York State but they tried to have them here and finally did decide on it. The first demonstrations were in a rural section, next in a semirural section and cities like Syracuse, and for the third a large block of New York City itself was taken.

Then we have the very powerful and widespread Mothers' Clubs of which you have spoken. You did not speak, however, of the insurance companies. A very powerful agency in New York State is the Metropolitan Life Insurance Company, and then, of course, the General Hancock. Several insurance companies are doing some excellent work in public health. The Red Cross was mentioned. The Child Guidance Clinic was also spoken of, which is one part of the Millbank Fund, which possesses almost a Rockefeller backing in finance and goes into other fields besides child guidance.

Then there is the American Social Hygiene Association which does very little work in New York State itself but which has been of some assistance. The Child Welfare Association is also national and does most of its work outside of New York State. We have, however, in New York State, under the Department of Health, some organizations of this character; that is, the Department of Health selects a group of people in a community to look after the welfare of children, and while they are not particularly allied with the national association they do work along the same lines. We have the National Cancer Association and a state one also. The national association is headed by a Ph.D., a layman, and the state association is very active.

One difficulty that confronts us is—what is there to offer as a preventive of cancer? The medical man knows, of course, that aside from early operation there is nothing to offer. So they are wondering just what a medically trained man can advance aside from a general discussion of the desirability of reducing the incidence. Recently, as you know, a great sum has been offered as a prize to the person who will discover a cure for cancer, and that will increase the interest for a while at any rate.

The Heart Association in this state is headed by a physician. But, again, its program is not medical in character. It is rather popular and the activities that association would undertake would not be in any way conflicting with the committee that Dr. Fisher has appointed and which began its work last night. That committee will study the etiology, the incidence and the prevalence of heart cases, going to the hospital as well as to the Department of Health, Department of Vital Statistics, etc. They do propose that they might conduct some courses of education, but not for the education of the public.

Then there is the Crippled Children's Association, another activity that medical men should consider very carefully. The public care of crippled children probably originated with the Shriners, or Rotary Club, or both. They started the work, I think, at about the same time, about 5 or 8 years ago. The Elks later took a big part in it and enormous sums of money are being appropriated for construction of elaborate hospitals for crippled children. Many of these hospitals are under the direction of very active and efficient men. The head of this movement in Albany is an engineer, an ex-mayor of Albany, and a very conscientious man, but he is the man who passes upon the type of case that will go to the hospital and has general direction of it. There is a nonmedical man directing medical activities.

New York State has taken a very active and most effective share in the work of diphtheria prevention. Two years ago last June, at a meeting of the State Charities Aid Association and the Tuberculosis Committee of this state, it was suggested that an antidiphtheria program be inaugurated, and it was announced that \$150,000 might be available for that purpose. They started to think of it constructively. Then Dr. Van Etten appointed a general committee including the leaders of that organization and the leaders of the State Society. Another group was organized, having 2 representatives of the Charities Aid Association, 3 from the Department of Health, 1 from the Department of Education, 1 from the State Society, and 1 from the insurance companies. We have had meetings to coördinate the activities in the antidiphtheria campaign. All of the work done in that line has been considered in this committee, whether it is a particular activity of the State Department of Health, or of the Metropolitan Life Insurance Company, or the State Medical Society, or the State Charities Aid. We got an endorsement from each county medical society. The medical men have pushed forward in the work. The Metropolitan Life Insurance Company too has had all of the agents have their families immunized and has spread a lot of literature. The State Charities Aid has spent some of the money in devising placards. The Department of Health has sent its requests to the school physician to have the work put across. All of us are working together harmoniously, but the outcome of it was to find that in this particular activity the physicians are not lagards by any means. They are pushing it, and the lay agencies with their publicity program are behind all of it. Probably the least active, or the one that deserves least credit in the publicity program is the State Charities Aid. That is worth considering on that score.

*Dr. J. B. Morrison, Newark, N. J.:* I feel that to take any intelligent part in a discussion of this kind one must have been educated for 15 or 20 years along lines of public health. When I heard this topic discussed I felt my inability to speak on it, still the subject is vastly interesting to me and I can see where in New Jersey we have fallen down, and have not taken the guiding part in these organizations that we should have done. However, it has opened our eyes to the land toward which we can travel. I feel that we should go home to our societies, state and county, and do all in our power to do away with the feeling of distrust in these voluntary organizations. It does exist largely in the minds of men who have not been actively engaged in public health work. These organizations are here to stay. The vastness of their work in municipal and local affairs is enormous and it needs coöperation and, from our point of view,

needs guidance, but it behooves us all to get behind them and do all that can be done in the way of guidance so that they can produce the best results in public health for the entire nation.

*Dr. James E. Sadlier*, Poughkeepsie, N. Y.: It is true, there is an attitude in every district derogatory to the work of the welfare organization. It is hard to understand or to explain why they should not coöperate nicely and well and do away with jealousies which seem to exist. Nevertheless, in every community, in every county, as I know them or am told about them, there are a certain number of big, broadminded physicians, men who are more than physicians, they are citizens of the community in which they live, men who are willing to take up big tasks and carry them through to a finish. It seems to me that in our respective states it is going to be our business to go into the various county organizations and elect the men who can be relied upon to accept positions on Public Relations Committees and gradually break down this barrier which seems to or which really does exist. It is going to be relatively easy, I think, in many county organizations. The big job is, I believe, to find those men who will go to work and carry on this amalgamation without jealousy toward the voluntary organizations or the medical organizations.

I think in New York State we can feel very proud of what Dr. Lawrence spoke to you about in regard to the antidiphtheria campaign, but, even there we see a certain lack of coöperation. I am enthusiastic about what is being done but it is a source of deep regret to me that in a great many districts throughout the state it is the children of high school age who are receiving the immunization. It is not in the preschool age, where we know the great percentage of diphtheria cases exists. We can only get at that by cultivating a more active coöperation with the general practitioner who has to do with children of preschool age.

I don't know that I can exactly agree with Dr. Lawrence on this question of cancer. I think there is nothing in our country that needs greater attention than the early handling of this cancer question. We are looking for a cure and sure prevention. Sometime, I presume, we are going to get it, but at present it is a will of the wisp. We may find it in a day or two and it may be found long, long after we are dead and gone, but what we can do is to urge the radical and proper treatment and the utilization of the knowledge that we now possess with reference to cancer. As a surgeon, seeing a vast number of cases, I think there is nothing more illuminating in the history of medicine than to take your routine work for a week and see the cases that come to you that could have had a reasonable chance for life if they had only been taken in time. I have promised myself faithfully that if my life is spared, after my term of office expires and I am free to devote some time to it, I shall take in every crossroads, village and hamlet in my district and talk to the people on the early recognition of cancer.

*Dr. Henry O. Reik*, Atlantic City, N. J.: My association with the New Jersey Society has disclosed a good many points of conflict between these voluntary agencies and the profession as represented by the State or County Society, and more frequently by the individual family physician himself. I have found that oftentimes the attitude of the medical man is unreasonable until things are explained to him, though, of course, we can pretty well understand his suspicion of lay organizations attempting to do the work.

The various health organizations in the state are there to stay, of course, and we want them to stay and we want to take advantage of their ability to raise funds and to carry on public propaganda, to aid us in putting over the diphtheria campaign and other health measures of that sort, and as has been suggested by each of the speakers, it means, after all, using our best efforts to correlate all of these agencies.

Dr. Krusen mentioned the work started on that basis of correlation of the various agencies many years ago in Baltimore. I had the privilege of working closely with Dr. Osler at the time the Maryland Tuberculosis League and later, the Maryland Public Health Association were getting started, and he made that very wise suggestion that the Medical Societies of Baltimore and the state of Maryland should see to it that every Public Health Board should have one or more physicians on it as directors. Dr. Osler's idea was, as I understood it, that this work should be always supervised by the medical man but that we certainly needed the layman to raise the necessary money.

In New Jersey we are now just inaugurating a state-wide campaign for the abolition of diphtheria, in which the State Medical Society is joining forces with the public health and lay organizations, and we are also engaged in forming woman's auxiliaries to each of our county medical societies.

*Dr. George M. Fisher*, Utica, N. Y.: Before I ask Dr. Farmer to close the discussion I want to say just a word or two. Dr. Reik in speaking of the importance of a physician being on the Board brought to my mind that until recently the State Charities Aid Association had no physician on their Executive Board. Two years ago Dr. Van Etter was placed upon their Board, as President of the State Medical Society, and that has been incorporated in their regular procedure. Hereafter the President of the State Medical Society will be a member and on the Executive Committee of the State Charities Aid Association. I think it is a very liberal advancement on the part of an organization like that, as they are handling the seal sales in the state amounting to over \$500,000 and probably an equal sum from other sources. The work they are doing is tremendous and we as physicians cannot say one word against the procedure so far as the good that they have accomplished. But up to 2 years ago it has been a rather close corporation; however, now it is showing a rather liberal spirit.

Along this line I want to make an announcement to you which shows this thing is progressing. On March 25 there will be a meeting in Chicago of representatives from all national lay health organizations. That has been called by the American Medical Association and shows the influence of Dr. Phillips, the President of the A. M. A. It is a great advancement and they are going to discuss there, exactly as we have discussed today, and as we discuss in the State Charities Aid Association, how physicians and lay organizations can work together harmoniously. It seems to me that the future holds out a tremendous possibility. In other words, it will make the physician coöperate properly with these lay organizations. I think it is a great advancement.

*Dr. Thomas Farmer*, Syracuse, N. Y. (Closing): I think the discussion has been far more interesting than my talk. I feel now that I can really take back what I said at the beginning and confess after listening to the discussion that you do know something about this subject.

While I was Commissioner of Health the various organizations coöperated nicely with the Health De-



partment, and in the child health work this was rather remarkable. The work was done by the Child Health Committee. The city had a few clinics and we made arrangements with them whereby our doctor in charge of the Bureau of Child Hygiene would direct the physicians of all the child health clinics, and their supervising nurse would direct all the nurses, ours as well as theirs.

We never have any trouble with the Visiting Nurse Association. I cannot speak too highly of them. I think we would feel like resigning our jobs if the visiting nurses should resign.

I agree with Dr. Sadlier on the cancer question. I believe we can do a great deal of work along that line and we should support the various agencies attempting to control cancer. It is possible, I believe, for the medical man to do something toward raising funds. Every once in a while we hear of the tuberculosis people losing their positions because of the reduction in death rate, and it occurs to me that we might get them to split the money they receive from the sale of seals and give half to us for this purpose.

From what Dr. Morrison said I would think that he could qualify for Health Officer right here, and I agree with Dr. Reik and Dr. Sadlier in their remarks, particularly as to the need of preschool immunization against diphtheria. And that brings out what I have referred to, the importance of the doctor in all this work. The only man who has access to the preschool child is the family physician and that is why we must pay attention to the demands of the family physician in this work. It is not in a commercial way of helping him in his business, but it is for the common good. Of course, my paper spoke largely of the weakness of the voluntary organizations. I want you to feel that I do not think they all have these weaknesses. I have mentioned it merely to call attention to the ones that have.

(To be continued.)

### WOMAN'S AUXILIARY.

Since publication of the March Journal progress in the organization of auxiliaries to the county medical societies has moved apace. At this writing we are able to report the successful formation of 7 such groups, and to say that engagements to present the question in other counties are being made so satisfactorily as to encourage the hope that every county in the state will be represented at the June meeting for amalgamation of the county auxiliaries into an auxiliary to the State Medical Society. The few county society officers who have not yet responded to our appeal for a local organization meeting should immediately read pages 187-191 of the March Journal, the further progress reported here, and then join their neighbors in making this movement a complete success. We are already assured that a majority of the counties will have instituted auxiliaries before the end of April. No county society will want to be left out of the June State meeting.

This is a call to the Presidents of county medical societies not as yet represented by an auxiliary to become a branch of the state organization. If you have not made a definite engagement and set a date for the presentation of this subject to the wives of the members of your county society, do so at once—lest your county shall suffer the humiliation of being "out of the procession", when the larger body moves in June.

During the month of March organization meetings were held as follows:

The Woman's Auxiliary to the Essex County

Medical Society was organized at a meeting in the Academy of Medicine, 91 Lincoln Park, Newark, at 4 p. m., March 10. About 50 women had responded to the call for this meeting. Dr. Sanford Ferris, President of Essex County Medical Society; Dr. Frank W. Pinneo, Secretary of the same society; and Dr. J. Bennett Morrison, Recording Secretary of the Medical Society of New Jersey, were present. Dr. Reik addressed the gathering upon the aims and objects of the auxiliary movement, and presided while the preliminaries to organization were discussed. After resolving to form an auxiliary, and accepting the proposed Constitution and By-Laws, it was decided to elect temporary officers and to call another meeting—with the object of securing a larger attendance—before electing permanent officers. The election resulted as follows: President, Mrs. John Huberman; Secretary, Mrs. Theodore Teimer. A special committee was appointed to meet on Monday, March 14, to consider plans for the next meeting and to prepare recommendations regarding the permanent organization.

Upon invitation of the Mercer County Medical Society, the wives of the members of that organization attended a meeting at the Carteret Club of Trenton, Tuesday, March 15, at 2:30 p. m., for the purpose of organizing a Woman's Auxiliary to the county medical society.

Dr. Reik addressed the assembled ladies, explaining the purpose and objects to be attained and submitting a prepared Constitution and By-Laws for consideration. At the conclusion of his remarks, the ladies voted unanimously in favor of organizing a Woman's Auxiliary to the Mercer County Medical Society, adopted the proposed Constitution, and elected the following officers: President, Mrs. F. G. Scammell; First Vice-President, Mrs. M. W. Reddan; Second Vice-President, Mrs. D. Leo Haggerty; Secretary, Mrs. J. J. O'Rourke; Treasurer, Mrs. J. B. Sill.

The next meeting is to be held at the same place April 12, 1927.

The Monmouth County Medical Society invited the wives of its members to join them at dinner at the Berkeley-Carteret Hotel, Asbury Park, at 8 p. m., Wednesday, March 16 and to attend later a meeting for the purpose of organizing a Woman's Auxiliary. A large county representation in attendance resulted. Dr. Reik was present from the State Society to explain the need of auxiliaries to the county and state societies and after some discussion of points in the proposed Constitution and By-Laws the women proceeded to effect an organization.

As in each of the other counties, in accordance with a suggestion from Dr. Reik, the following resolution was adopted: "Inasmuch as it proved impossible to procure attendance at this meeting of all those who were invited, we shall deem the wives of all members of the Monmouth County Medical Society as charter members of this Woman's Auxiliary, and the secretary shall notify them of that fact when issuing invitations to the next meeting."

It was further determined that the next meeting shall be held at the same time and place as the next county medical society meeting, and the determination of place and frequency of future meetings shall be considered at that time.

The following officers were duly elected:

President, Mrs. W. G. Herrman; First Vice-President, Mrs. C. M. Trippe; Second Vice-President, Mrs. C. D. Prout; Secretary, Mrs. R. E. Watkins; Treasurer, Mrs. Henry B. Dorr.

In Gloucester County, upon invitation of the officers of the County Medical Society, the wives of members met at the Woodbury Country Club, Thursday, March 24, at 9 p. m., to organize a Woman's Auxiliary.

Dr. Reik presided at this meeting also and after listening to his explanation of the objects and aims of such auxiliary medical bodies, and of the plans of the National and State Associations, the ladies present voted unanimously to proceed with the work of organizing. A Constitution and By-Laws was adopted and then a preliminary organization formed by election of Mrs. W. J. Burkett as Temporary President, and Mrs. William Brewer as Secretary.

Having adopted a resolution to provide that the wives of all members of the County Medical Society shall be registered as charter members of this auxiliary, unless they definitely decline to accept such honor, it was decided to appoint a special committee, of which the temporary president and secretary should be members, to act as a nominating committee for selection of permanent officers to be elected at the next meeting. It was also determined that the next meeting of the auxiliary shall be held at the same time and place as the next County Medical Society meeting, and that the question of place and frequency of further meetings shall then be determined.

## County Society Reports.

### ATLANTIC COUNTY.

Harold S. Davidson, M. D., Reporter.

Regular meeting of the Atlantic County Medical Society was called to order at 8:30 p. m. Friday, March 11, 1927, by the President, Dr. Charles B. Kaighn. The minutes of the previous meeting were read and approved.

Dr. W. Blair Stewart, reporting for the Commission on Public Health and Welfare, said it was likely that no medical bills would be reported out of Committee in the present session of the legislature.

Dr. Walt P. Conaway, for the Board of Censors, recommended that Dr. Norman L. Bassett be reelected to membership. This was unanimously carried.

Primers on Relation of the Physician to the Public were distributed by Dr. Reik for the State Medical Society.

Dr. Richard Bew asked for better coöperation of the physicians of the county with undertakers in order to get more autopsies.

Application of Dr. I. Shenfeld, for membership, was read.

Dr. John B. Deaver, Philadelphia, Pa., read a paper on "Mistakes in Diagnosis of Gastric Ulcer". (Dr. Deaver's paper was published in the March Journal.)

Dr. Thomas McCrae, Professor Clinical Medicine, Jefferson Medical College, Philadelphia, Pa., spoke on "Intravenous Therapy". Ever since the discovery of the circulation in man, there have been experiments with transfusion. Patchelli gave quinin intravenously for malaria in 1890. Modern use of intravenous therapy was brought out in 1910 by the use of salvarsan for syphilis. Drugs are not always more efficient when given intravenously because they are very often too rapidly absorbed and eliminated. We

very often want slower action. Every intravenous injection carries with it some degree of danger; the blood is a very finely adjusted fluid and has to compensate for fluids pumped into it. Ringer's, Locke's, saline and glucose solutions are nearly safe. Glucose given slowly, but not concentrated, should be used; 10% solution safe, 50% never. Colloids are dangerous, intravenously; acacia is dangerous; gentian violet and mercurochrome definitely dangerous. Blood transfusion to combat septicemia has a place, if the patient is very anemic, because of the anemia and not of the septicemia. If you immunize healthy individuals and then transfuse, it is a dangerous procedure and apt to be suddenly fatal.

Serums. In diphtheria it is your duty to give serum. Pneumococcus serums, also, are proper but have possible dangers. Vaccine intravenous therapy is never indicated.

Drugs. You must consider what you want to accomplish by giving drugs intravenously. Are they not just as good given other ways and not so dangerous? They must never be given in concentrated form. Iron. What possible benefit can be obtained by giving iron intravenously? What you want is a small amount steadily absorbed and you certainly do not get that action intravenously. Quinin. Of the amount given, 90% is out of the circulation in one minute. By mouth, it is entirely satisfactory. Calcium. The technic must be very exact. Calcium in the tissues is very disastrous. Magnesium sulphate has a very definite place intravenously in eclampsia, but not in strong solutions; 10% much safer than 20%. Salicylates, no reason for giving intravenously; rectal administration is very satisfactory. Iodides. There is no evidence of advantage by using intravenously. Want a slow sustained action. In asthma they help many and harm many. Good is done by breaking down cells, which gives a foreign protein reaction. Peptone gives the same action. Sodium cacodylate for anemia is often given in too large doses; intramuscular injection is just as efficacious as intravenous. Digitalis and strophanthus intravenously have a remarkable effect; only necessary in desperate cases where there is no time to lose. Very few cases would warrant this risk. A definite indication would be a pneumonia with circulatory failure.

Antiseptics. Always great doubt as to the advisability of using. There are some indications for their use, but there are grave dangers, especially in kidney conditions when you use mercurochrome; it will produce the same lesions as bichloride of mercury poisoning. Novasural should be used only in properly chosen patients.

### Atlantic City Hospital Staff.

Joseph H. Marcus, M. D., Secretary.

The monthly meeting of the general staff of the Atlantic City Hospital was held in the Nurses' Auditorium, March 18, 1927. The meeting was called to order by Dr. William J. C. Carrington, president.

The scientific program constituted the following: Report of the Surgical Service, Drs. Thomas D. Taggart and John Irvin. Report of Medical Dispensary, Dr. Sidney Rosenblatt. Report of Unusual Cases, Drs. D. Ward Scanlan, Theodore Senseman and Harold S. Davidson.

Dr. John S. Irvin, Associate in Surgery, presented a statistical report of the service of Dr.



Taggart, The following operative cases were enumerated.

Ileotomy .....	1
Appendectomy .....	11
Hernia .....	3
Open reductions .....	3
Remaking of axilla, as result of burns.	1
Removal of foreign bodies.....	2
Hemorrhoidectomy .....	3
Excision of varicose veins.....	1
Excision of tumors and cysts.....	4
Excision of glands.....	1
Suturing of tendons.....	3
Amputation of fingers.....	5
Incision and drainage of abscesses....	12
Closed reductions .....	5
Application of casts.....	18

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This presentation covered a period of 3 months, from November 1, 1926, to January 31, 1927. The total number of admissions were 131, of which 81 were male and 50 female patients. The number of operations totaled 63, with 2 operative deaths; the number of deaths totaled 6, a mortality of 4½ % of the admissions.

Dr. Irvin presented the following reports of mortalities:

Case 1. Colored female, aged 60, chief complaint being loss of function of the hip. She was brought to the hospital in a semiconscious condition after having been struck by a trolley car. The salient features presented were fracture of the upper end of the left hip, cerebral concussion, general contusions. X-rays disclosed an intertrochanteric fracture of the left femur. The urine showed evidence of a chronic nephritis. Patient died 2 weeks after admission.

Case 2. Female, white, aged 15, admitted to hospital in a semiconscious state and died 3 hours later.

Case 3. Male, aged 16, white, admitted with pain and swelling of the neck with temperature of 105°, pulse 108, respirations 28. The past history disclosed several attacks of tonsillitis. Present illness commenced 2 weeks prior to admission with a sore throat that grew increasingly worse. Five days after onset the left side of the neck commenced to swell and this has been steadily progressing. Physical examination revealed bulging of left peritonsillar region; marked dyspnea; left side of the throat covered with a slough, moist râles in both lungs; heart sounds feeble; left axillary glands enlarged. Culture and smears taken from throat were negative for diphtheria, the prevailing organisms being pneumococcus. Urine contained 15 mgm. albumin and numerous fine granular casts. Immediate operation was performed under gas, oxygen anesthesia. Left side of neck was incised and very large quantity of pus was evacuated, following which the peritonsillar abscess was opened. Patient died shortly following the operation.

Case 4. Male, 61 years of age, white, chief complaint was pain and loss of function of the right leg. Mother died of rheumatism, father died of cancer. Patient had gonorrhea 42 years ago, and a chancre on the penis 40 years ago. Uses alcohol to excess. Roentgenographic examination follows: "There is a transverse fracture of the right femur just below the lesser trochanter. The remainder of the femur shows

the following differences from the normal bone: There is evidence of cystic degeneration in the region of the greater trochanter; the middle third of the femur shows evidence of an increase of the cortex of about 4 times its normal thickness, with a narrowing of the medullary canal." The blood and spinal Wassermann were negative. Urine disclosed a few coarse granular casts. Patient died 9 days following admission. Cause of death—hypostatic pneumonia with an accompanying nephritis.

Case 5. Male aged 18, chief complaint pain in the lower right quadrant, accompanied by vomiting. The onset commenced 12 hours prior to admission, with general cramp-like abdominal pains with occasional radiation toward the back but not to the scapular region. Pain is gradually getting worse. About 6 hours after onset the pain migrated to the right lower quadrant, with no radiation to the penis, scrotum or thighs. Has vomited 5 or 6 times, the vomitus greenish at first and later becoming dark brown in color. The salient features in the physical findings disclosed fairly marked tenderness in the right lower quadrant. Temperature at this time was 100.3°, pulse 84, respiration 20. Leukocytes 25,350, with 92% polynuclear cells. The urine showed a trace of albumin, with 200 leukocytes to the field. Operation, consisted in removal of the appendix, which was of the acute purulent type. Patient made an uneventful recovery.

Dr. William E. Darnall, discussing Dr. Irvin's case, reported in brief the case of a male adult in whom a gangrenous ruptured appendix was adherent to the bladder and caused pain in the left kidney; finding of pus in the urine was explained by Dr. Darnall as caused by diapedesis through the bladder wall.

Dr. Thomas D. Taggart outlined in brief the work performed in his 3 months of service, emphasizing certain phases of the statistical report presented by Dr. Irvin. The following mortalities were discussed by Dr. Taggart.

Case 1. Adult, female. Had been in ill health for 6 months prior to admission, at which time the chief complaint was severe abdominal pain with a profound neurasthenia. This patient was operated upon 15 years ago, and entire wound had broken down while in process of healing. In 1924, an operation for partial obstruction and tubo-ovarian disease was performed. Upon admission the patient was quite maniacal. Urine showed 30 mgm. of albumin and the heart showed evidence of disease. Death was due to acute dilation of the heart with chronic nephritis, toxemia being produced by partial obstruction of the bowels.

Case 2. Adult, female, admitted 4.45 a. m., December 14, 1926. Chief complaint, abdominal pain. Had been complaining of indigestion for a number of years. The indication warranted surgical procedure, which was refused at the time, but 2 days later the patient consented to operation. The operative findings were as follows: A pouch extended from the pelvic brim to the transverse colon, made up of peritoneum in which coils of small intestines could be seen; mouth of the pouch was below the broad ligament; small intestines herniated and strangulated in sac. Patient succumbed in a state of shock several hours later. Diagnosis—retroperitoneal (paraduodenal) hernia. Dr. Taggart stated that there have been reported 100 left and 20 right paraduodenal hernias. No diagnosis had been made before operation of the right paraduodenal hern-

ias, and of the 100 left type only 3 were diagnosed clinically. Dr. Taggart concluded his report with a brief summary of the general principles in treatment of the surgical abdomen. He demonstrated with roentgenographic plates the plated fracture of the tibia, fracture of the femur which required open operation with parts of muscle interposed between the fragments, fracture of the surgical neck of humerus in which traction under anesthesia was unsuccessful, and those with good results obtained by means of an open operation.

Dr. Senseman warned of the dangers of these plates, which he regarded in the light of foreign bodies, but which dangers are not of great importance with the exception of infection; pressure necrosis due to the screws being placed too tightly. He advised the use of splints to prevent riding of the fragments and that some motion is necessary in order to stimulate callus formation.

Dr. Sidney Rosenblatt, chief of the medical dispensary, reported his service for the year 1926. A total of 1005 new cases were treated. Suggestions were offered for the new medical dispensary in order to facilitate the examination of patients and cooperation with other clinics that are to be held simultaneously. He strongly urged the advisability of eliminating those patients whose circumstances do not warrant free out-patient treatment. Dr. Rosenblatt concluded with a statistical presentation of the cases treated in his department of the dispensary.

Dr. Clarence L. Andrews, said that autogenous pins from bones will eliminate the question of infection to a marked extent.

Dr. V. E. Johnson spoke on the question of the healing of wounds.

Dr. William E. Darnall reported 4 cases of fracture which required open operation and which did not spontaneously heal due to the presence of lues.

Dr. Taggart, in closing the discussion, felt that bone pegs are indicated more frequently in chronic cases. He stated that most cases that do not heal more or less promptly were due to an underlying luetic infection.

Dr. D. Ward Scanlan, chief of medical service, presented his report, with Harold S. Davidson as associate, the medical service extending from November 1, 1926 to March 1, 1927. In his prefatory remarks Dr. Scanlan emphasized the importance of viewing each case as a problem in itself, stating that each of the 113 patients admitted to his service presented interesting features. He thanked the various chiefs of the departments for their willing cooperation in rendering consultation service, which total amounted to 48 in number; of the consultations requested from the medical service 15 were held.

Dr. Scanlan inaugurated a series of medical clinics at the Atlantic City Hospital, the first being instituted some months ago when cases presented were discussed by Dr. A. C. Morgan of Philadelphia. Another similar clinic was arranged several months later, but due to the illness of Dr. Alfred Stengel, who was to hold this clinic the demonstration was given by Dr. Richard Bew, D. Ward Scanlan and Harold S. Davidson. This clinic was commented upon in most favorable terms by the members present, with the desire that similar demonstrations be held in the near future. He urged the chiefs of the various departments to pursue this course. He commented briefly upon the statistical report

which was compiled and presented by Dr. Harold S. Davidson.

(An analysis of special cases as presented by Drs. Scanlan and Davidson will be published in the Journal as "Case Reports".)

The report covered 113 cases as follows: Cardiovascular system, 21; respiratory system, 26; nervous system, 12; genito-urinary system, 14; gastro-intestinal system, 19; poisoning, 13; miscellaneous, 8.

In the above 113 cases there was a mortality of 17%. Of the deaths, 5 occurred less than 24 hours after admission, 4 died within 2 days and 6 within 3 days after admission. The number of autopsies totaled 40% of the deaths.

Dr. Harry Subin, Assistant in Surgery, reported 2 cases of Comminuted Depressed Fracture of the Skull, from the service of Dr. David B. Allman.

The first case is that of a boy, 6 years of age, who was struck by a machine on September 3, 1926. On admission to the hospital, a depressed fracture was easily felt in the left parietal region. The mother claims that the child was unconscious from the moment of being struck. Pupils were dilated, fixed, equal and regular. The child was operated upon by Dr. Allman soon after admission, for elevation of depressed fracture and decompression. Soon after the operation the child regained consciousness and, with the exception of some vomiting, made an uneventful recovery and was discharged from the hospital on October 1, 1926.

The second case is that of a girl, 4 years old, who was struck by a machine on September 5, 1926, and brought to the hospital suffering from a compound fracture of the skull, which included the parietal, temporal and basal regions. She was unconscious on admission. Her temperature was 97.4° by rectum, pulse 92, and respirations 16. She had projectile vomiting and bleeding from the ear, also distinct ecchymosis of the right eye. She was taken at once to the operating room, where Dr. Allman removed portions of the bone about the vault. For several days after operation the patient was very restless and vomited a good deal. Gradually brain substance began to protrude from the wound and the patient developed a hernia about the size of an ordinary crab-apple. She developed a slight weakness of the right hand, with very slight amount of motor paralysis. This girl improved, however, as the hernia receded and, at the time of discharge on October 9, 1926, the patient had very little evidence of hernia remaining and a minimum degree of paralysis.

#### BERGEN COUNTY.

Spencer T. Snedecor, M. D., Reporter.

The March meeting of the Bergen County Society was held at the Holy Name Hospital, Teaneck, with Dr. George Finke presiding.

Dr. Charles Colhoun, of Rutherford, who is no longer an active practitioner, was made an honorary member of the society.

Drs. George S. Stevenson, William Barnes and George F. Worcester were accepted by transfer into the Bergen County Society.

A committee was appointed to form a Woman's Auxiliary to the County Society.

Dr. George Pitkin, of Bergenfield, read a paper on his original work in "Spinal Anesthesia" with a comparison of its advantages over inhalation



anesthesia. Dr. Pitkin's experiments were very striking and his results convincing. He administered his own solution of novocain in viscid alcohol into the spine and finds that he can control the level of anesthesia very closely.

After the paper he entertained the society with a series of moving pictures of his technic and operations. All together, with the demonstration of his experiments, charts and photographs, the paper was one of the most complete and interesting ever presented before the society, and it will be published in its entirety in a future issue of the Journal.

### Hackensack Hospital.

Spencer T. Snedecor, M. D., Reporter.

Thirty-five physicians attended meeting of the Staff, held March 21. The treasurer reported over \$365 in the treasury, from which the library committee was empowered to order suitable binders for the current periodicals now available on the table in the Medical Board Room. Drs. Charles Colhoun, of Rutherford, and John A. Pratt, of Dumont, were made honorary members of the staff.

The Annual Charity Ball, given by the Board of Governors, will be held April 18, therefore, the date of the next staff meeting was set for April 25. A committee, consisting of Drs. Donald Curtis and Frederick S. Hallett, was appointed to see the Police Commissioner in regard to parking privileges.

Dr. George W. Finke reported for the surgical service that in the past month only one case of severe infection has occurred in a clean wound and that had been expectant.

A case of acute appendicitis, which had ended fatally early in the month, was reported by Dr. George L. Edwards. General peritonitis was found when the abdomen was opened and only the stump of a gangrenous appendix remained. Postoperatively the patient had appeared in good condition but 36 hours later a sudden dilatation of the heart overwhelmed her.

A child of 5 years entered the hospital with a severe infection of the right index finger. Osteomyelitis had developed in all the phalanges and, although adequate drainage was instituted at once, the infection ran a course of many weeks. Meanwhile a subcutaneous mass appeared in the left chest wall, at first considered to be an empyema necessitatis. It was aspirated and thick green pus obtained. X-ray examination then showed an osteomyelitis of the sixth rib, doubtless of metastatic origin. Also it was noted about this time that the child had badly diseased tonsils and was a mouth breather. After several weeks without improvement, it was decided to resect the rib and remove the tonsils at the same time. The child went into shock after the operation and died the following day. Discussion centered on the cause of death as due to the combination of the 2 operations. It was decided that the rib resection should have been done first.

A man was admitted to the hospital after having been run over by a tractor. He was tender and rigid in the right upper abdomen. For 8 hours he was carefully observed. His symptoms remained the same; pulse slowed down but his red blood cells decreased 500,000 and white blood cells doubled. Immediate operation then revealed a rupture of the liver from which the blood welled so rapidly that it could only be

packed. The patient rallied well but on the following day developed a psychosis and required an attendant constantly to control him. Two days later he developed pneumonia and died. Dr. Finke brought out the point strongly that bradycardia is the usual and unexpected finding in cases of ruptured liver.

An obscure case that was puzzling to many consultants was described by Dr. Herman Trossbach. A man of 38 was seized with severe abdominal cramp which shortly passed away and he did not suffer any further pain during the whole course of the disease. The following day he was seen by the doctor. His abdomen was distended but not rigid and he was noticeably jaundiced. The course of the disease was marked by septic temperature, high leukocyte count, constant jaundice and distended abdomen in which nothing definite could be palpated. After 2 months in which many diverse opinions were rendered, an operation was decided upon. At once thickening of the portal vein was felt but no other liver or gall-bladder pathology. As the abdomen was being explored a large abscess cavity was entered which proved to be of appendiceal origin.

Dr. Samuel T. Hubbard gave a short talk on "Sinusitis and Headaches of Nasal Origin". He made his talk applicable to the general practitioner by a brief description of the anatomy of the sinuses and the symptoms when infected. Morning headache, clearing later in the day as drainage becomes established, is particularly indicative of sinusitis. As a focus of infection the sinuses are second only to the tonsils. Teeth should be investigated as the possible source of sinus trouble. Treatment consists of astringents locally, adrenalin preparations and ephedrin, which may help to establish drainage. If not relieved, the patient probably requires irrigations. Chronic sinusitis necessitates the more radical operations.

Dr. R. Gilady exhibited some autopsy specimens, including aneurysm of the aorta, gangrene of the lung and breast carcinoma which had metastasized through many organs of the body.

### ESSEX COUNTY.

Wm. M. Rathgeber, M. D., Reporter.

The regular monthly meeting of the Essex County Medical Society was held on the evening of March 10, 1927, at the Academy of Medicine, 91 Lincoln Park, Newark. President Sanford Ferris called the meeting to order at 9 o'clock. "Periodic Health Examinations" was the topic of the evening. Dr. Henry O. Reik, Secretary to the Welfare Committee of the State Society, the first speaker, presented "The Technic of Periodic Health Examinations", by a series of well appointed motion pictures. He stressed 2 important points in performing these examinations: (1) the need of keeping accurate and complete records to which the examiner can refer for comparison when the patient returns for subsequent checking up; (2) the thoroughness required in making health examinations, so that no defects would be overlooked. To meet these requisites, the State Society has had printed forms made which outline the complete procedure. These forms can be purchased at a nominal sum.

Dr. Alec N. Thompson of Brooklyn, the second speaker of the evening, gave an interesting talk on the progress that is being made in periodic health examinations throughout Brooklyn and

New York City. In these places weekly meetings are held where general practitioners are instructed in modern methods of performing such examinations. These courses have aided materially in increasing the number of patients reporting for examination. Dr. Thompson explained that patients, after being examined, are classified by groups, depending on their present state of health. Those requiring minor dental, medical, or surgical correction are put in a group designated as "Mild or Moderate Defects", according to the amount of correction necessary. Patients in groups designated "Advanced or Serious Defects", require major dental, medical or surgical correction. Dr. Thompson read some statistics involving health examinations given 91 physicians at the Kings County Hospital. These doctors were all leading active lives and were apparently in good physical condition. After examination, none were found without defects; 50 out of the 91 had varying types of cardiovascular disease, 43 had definite nose and throat trouble and smaller numbers had eye, ear, dental, muscle or bone defects, overweight, etc.

Dr. C. R. O'Crowley, Chairman of the Essex County Welfare Committee, the next speaker, stressed the importance of having physicians in this county familiarize themselves with the details necessary in performing periodic health examinations and, in view of the fact that it is the cultured class of patients that is more impressed with such examinations, the duty of every physician is to stimulate interest in this type of work. He also stated that insurance reports show that death and sickness rates have been reduced by these examinations. Dr. O'Crowley deplored the laxity of health examination in New Jersey and concluded his remarks with the slogan, "He who cures disease renders a service, but he who prevents disease renders a greater service".

Dr. Ralph H. Hunt, member of the Essex County Committee, laid emphasis on carrying periodic health examinations into the factories in Newark, pointing out that it is an important item in measuring the efficiency of employees. Dr. Hunt also urged spreading periodic health examination propaganda among private patients.

In the discussion that followed, Dr. M. J. Fine, in charge of examinations for food handlers in Newark, spoke of the work done in that department. Food handlers, comprising grocerymen, milkmen, butchers, bakers, confectioners, etc., are required by law to report for periodic health examinations at stated intervals during the year. The following table gives the more serious types of defects found:

Cases examined since 1920	
(food handlers) 39,814	
Number of Cases of Tuberculosis found—	
Active .....	157
Inactive .....	84
Number of Cases of Venereal Disease found—	
Active .....	51
Inactive .....	10

After the foregoing program the following physicians were elected to membership in the Essex County Medical Society: Maclyn Baker, 681 Stuyvesant Avenue, Irvington; M. J. Bonomo, 477 Springfield Avenue, Newark; Frank S. Forte, 456 Roseville Avenue, Newark; S. H. Jessurun, 613 High Street, Newark; Paul Keller, Newark Beth Israel Hospital, Newark, and H. S. Palmer, 257 Mulberry Street, Newark.

## GLOUCESTER COUNTY.

Henry B. Diverty, M. D., Reporter.

The regular meeting of the Gloucester County Medical Society was held at the Woodbury Country Club on Thursday evening, March 24, with President Burkett presiding. Dr. Knowles, professor of Diseases of the Skin, Jefferson Medical College, gave an illustrated lecture on some of the commoner lesions of the skin as met with in general practice. After a brief descriptive talk about the anatomy and physiology of the skin, including the objective and subjective symptomatology, Dr. Knowles took up the lesions as seen in pityriasis rubra pilaris, the different forms of acne, syphilis, psoriasis, pityriasis rosea, dermatitis venenata, the many types of tinea, scabies, pediculosis and the dermatoses assumed to be related to tuberculosis. After the lecture an open clinic was held and members presented some of their most obscure and rebellious cases for diagnosis and treatment. The cases were discussed by all present, the discussion being opened by Dr. Decker of Camden. The evening was most profitable to all present and the essay committee are entitled to commendation.

## HUDSON COUNTY.

M. I. Marshak, M. D., Reporter.

The Hudson County Medical Society met at the Carteret Club, Jersey City on March 1, 1927, in conjunction with the Hudson County Bar Association. Dr. W. Friele presided over the medical section.

It was voted that the society recommend to the State Society that it shall take up the matter of having the Motor Vehicle Department of New Jersey make automobile plates with a special designation for physicians, such as are issued to taxis, busses and other special groups; such plates to be issued to regularly licensed and registered practitioners only.

Abuse of free hospitalization and clinic care by nonindigent patients was discussed and a motion made that a committee be appointed to study the problem and devise ways and means to diminish this evil.

A message was read from Dr. Talbot R. Chambers asking that his resignation be accepted as he is now residing out of the county. On motion by Dr. Dickinson, the name of Dr. Chambers was taken off the regular and placed on the honorary membership list.

The Nominating Committee made the following recommendations for office:

President, Stanley R. Woodruff; Vice-President, W. J. Sweeney; Secretary, Harry J. Perlberg; Treasurer, Donald Miner; Reporter, Martin I. Marshak.

Trustees: Arthur Justin, Gordon K. Dickinson, John Nevin, Charles V. Niemeyer and B. S. Pollak. Censor, E. J. Luippold. Scientific Committee: F. Pearlstein, A. E. Jaffin and Wm. W. Maver. Welfare Committee: Samuel A. Cosgrove, Charles J. Larkey and A. C. Forman. Publicity Committee, Maurice Shapiro. Membership Committee: C. B. Kelly, B. Kooperman, Wm. N. Barbarito, R. L. Ballinger, David M. Marks, M. J. Weiss, C. P. Opdyke, H. V. Broesser, Wm. Eckert, J. M. Kolb, J. J. O'Connor, M. Frank, A. Justin, T. F. Coughlin, Joseph Koppel, Geo. E. Sullivan, Wm. Brooke, D. B. Street, Wm. G. Doran and Louis Pyle.

Audit Committee, Dr. J. P. Stout. Publications



Committee: M. I. Marshak, Alvin Kuhlman, Morris Frank and John M. Cassidy.

Annual Delegates to State Society: Daniel B. Street, Earle Halligan, Louis Lange, Morris Frank, Thomas Coughlin, T. J. Schuck (Hoboken), Louis A. Pyle, Margaret Sullivan, William Callery, John J. Pagliughi, Ernest Thum, Maurice Shapiro, W. J. Matthews and Harold J. Hoops. Permanent Delegates: to fill the vacancy by resignation of J. Morgan Jones, Dr. A. E. Jaffin; to fill the vacancy by resignation of Dr. Wallace Pyle, Dr. Donald Miner.

Mr. Oscar W. Ehrhorn, Professor of Medical Jurisprudence at the New York Medical College and Hospital for Women, read a paper on "Expert Medical Testimony". He described a medical expert as one who has given the subject special study, with sufficient opportunity for practice and observation. The weight of an expert's testimony is a question for the jury to decide. Expert testimony may be given after observation of the case, listening to the evidence produced or by means of answering a hypothetical question.

The value of an opinion on a hypothetical question depends upon the proper facts being contained in the question. An expert in testifying after observation of the case can only base an opinion on the objective symptoms and signs; the patient's subjective symptoms being of no value in this type of testimony, as it is considered "hear say". On cross examination, questions as to the reason for the expert's opinion may be asked. Medical works can only be read in testimony to bring out the fact that an expert's opinion based upon such books or authority is erroneous. They cannot be read to show that the text book or authority differs in opinion from that testified. Some of the reasons why the laity has begun to look upon medical expert testimony with bad favor are: (1) Conflicting opinions brought forth by the hypothetical question being differently worded by opposing council. (2) The expert becoming rabidly one-sided. (3) So-called experts possessing insufficient knowledge. (4) Lawyers having only victory in view. (5) The desire for material things by both physicians and lawyers. As a solution for the problem of medical expert testimony, it has been suggested: (1) That there shall be a body of official experts to be paid for by the State. (2) That there be a list of official experts from which list the litigants might choose, but that they be also allowed to employ others. (3) That there be an official list, but that the litigants pay for the service rendered. Objection has been made to all of these on the score that the present system, if properly safeguarded, has proved its worth; that the suggested system would exclude the younger and "unfossilized" men, and that they would exclude men who might have the view of one or the other of the litigants. The different solutions offered should be weighed in reference to local problems to obtain anything like the best results.

Medical science is ever growing. The profession is doing and has done a noble work for the cause of mankind, but has been misunderstood and underrated. Only a few of the profession, are not true to its ideals. One of the misconceptions is due to the fact that lawyers and medical men look at things from a different viewpoint. Physicians and lawyers should therefore have more knowledge of each other's science. The laity must be educated to understand and demand higher standards for both professions.

Dr. William J. Arlitz read a paper on "The Expert Witness and the Measurement of Disability", consisting largely of a review of the New Jersey Compensation Laws with the following added thoughts. The basic principle of compensation legislation is to give the injured individual the benefit of the doubt. Honor and integrity should be kept foremost in mind when testifying. It is essential that the Judiciary believe not only in one's knowledge but also in one's honesty. Trauma may result in permanent disability or in full recovery. A man may have various physical and functional defects, but if he can perform a given work properly, his ability is considered 100%. In figuring compensation, absolute restoration is not necessary if full work can be done. Only alteration of industrial value of a subject should be taken into consideration. If there is injury to viscera, one must figure that in the percentage of disability. Probability of proper function must be taken into consideration, especially in mental cases and in nerve injuries. Although a subject is given 100% disability and he recovers sufficiently to go back to industry on a different type of work, if he is again injured, he must receive some compensation for the subsequent injury. The question of right or left handedness is never considered.

The hernia problem is the one which produces most of the difficulties. Even if the hernia is known to be old, some compensation will have to be allowed. Frequently, the subject will destroy the evidence by having an operation performed before the trial. In fracture cases, disability is frequently figured according to the scale—25% for alignment, 20% for union and 60% for function. The line of bodily gravity must be taken into consideration in figuring fractures of the lower limbs or the pelvis. Waste of time is the costliest stupidity in this most expensive problem.

Drs. Dickinson, Rector and Hasking and Mr. Markly, took part in the discussion. The need for a fuller coöperation between the professions in order to make medical testimony of greater value to the public was brought out.

# Osler Clinical Society.

M. I. Marshak, M. D., Secretary.

Dr. David Riesman, Professor of Medicine at the University of Pennsylvania, the chair in medicine formerly occupied by Osler, gave the annual oration in medicine before the Osler Clinical Society at the Jersey City Hospital, on March 16, 1927. His topic was, "The Treatment of Pneumonia", for pneumonia was called by Osler, "the captain of the men of death". Dr. A. E. Jaffin presided.

Before proceeding with his topic, Dr. Riesman thought it wise to discuss the diagnosis of atypical cases. Pneumonia without chest symptoms, especially in children, is characterized by sudden onset of chills, fever, little or no cough or expectoration, no definite signs in the chest and clearing up by crisis. This condition has to be differentiated from tonsillitis and the acute exanthematous disease. He explained these cases by calling them central pneumonia, because pneumonic patches have been demonstrated by the x-rays deeply situated. There is usually present a little hyperresonance, a high pitched woody tympany at the angle of the scapula and in the axilla. Auscultation may show a complete sup-

pression of breath sounds in these areas with fine crepitations made out at the end of inspiration. Later, these areas may develop bronchial breathing. The voice sounds are always changed, even producing egophony. A high leukocyte count is present. The abdominal type is characterized by pain in the abdomen with rigidity so marked that many cases are diagnosed as acute appendicitis and even gall-bladder disease. In the Boston City Hospital 25% of all cases diagnosed as acute appendicitis were proven to be pneumonia. Cases were cited to illustrate these remarks. As leukocytosis is rarely over 20,000 in acute appendicitis, one must think of pneumonia whenever the count is above that figure. The necessity was stressed of a thorough chest examination in every case of appendicitis before operation, especially in children. In the meningeal type, there are stupor and sometimes coma and delirium, without definite Kernig's sign. Motion of the nasal wings with expiratory grunt, and not infrequently herpes labiales should direct the diagnosis. In postoperative pneumonia, the practice of a thorough chest examination, made without moving the patient by slipping the bowl of a Bowle's stethoscope under the back is important. Postoperative massive collapse of the lung presents signs akin to those given by fluid and, as a puncture is usually fatal, extreme care must be taken in making a diagnosis. The heart, in these cases is displaced toward the side of the lesion.

Pneumonia may simulate typhoid, caseous pulmonary tuberculosis, pulmonary infarct, acute pyelitis and, because of the presence of Bamberger's sign due to pressure, pericardial effusion.

Pneumonia should be looked upon as a highly communicable, even a contagious condition. The pneumococcus is not a normal constituent of the flora of the mouth. A majority of cases give the history of a "cold", a week or more previous to the onset of the disease. Close study of our cases will demonstrate the fact that contact infection is becoming more and more frequent. Riesman cited statistics of pneumonia in epidemic form among the workers at Panama while domiciled in barracks, and among the negro miners in South Africa. The question of quarantine against pneumonia is now receiving a great deal of attention. Pittsburg and Washington, D. C., actively quarantine against pneumonia and their statistics show a remarkable reduction both in the incidence and death rate since this practice was adopted. We should all insist on individual quarantine of the case and keep visitors away.

Individually, one should keep in as good health as possible by avoiding fatigue, exposure and excesses. If not well, it is better to keep away from crowds and sick individuals. Whether the absence of vitamin "A" from the diet is a factor in keeping up proper resistance to infection is now being discussed. Vaccination has been tried with varying results.

The main thought in treating the patient after onset of the disease is that "there is greater danger of overtreating than of undertreating". Too much handling of the patient is fatal. Because pneumonia is a "shock condition", constant watchfulness is necessary. The heart should be carefully watched, as well as the abdomen for tympanitis and the urinary bladder for distension. An increase in pulse rate and a change in the mitral note is a serious sign. There should be no visitors, no sponging except for cleanliness or very high fever. "The patient should be left

in peace." The diet should consist of cooked cereals, broths, creamed soups, water-ices, albumin water, fruit juices, milk, butter milk, acidophilus milk and a great deal of water. Water should be given to produce about 50 oz. of urine. Alkalies to reduce acidity of the urine are indicated. Charged waters or ginger ale should be given in cases with nausea or vomiting. For constipation, mild laxatives or daily enemas may be necessary.

If the pulse is under 100, stimulation is unnecessary. If it is over 110 stimulation is desirable. Tincture of digitalis in 15 minim doses is the drug of choice. The commonest cause of death in pneumonia is circulatory failure. If failure occurs the digitalis will have to be pushed, augmented by caffeine and sodium benzoate, camphor in oil, adrenalin and, in crisis, pituitrin. Alcohol should only be used in the aged, debilitated or very toxic patients and in alcoholics. The average patient does not need alcohol. In acute pulmonary edema atropin in large doses is given. For cyanosis, bleeding may be done, though oxygen is preferable. The cough should be controlled with codein, morphin, luminal or chloral hydrate. For tympany, keep the bowels open, exclude milk, give asafetida enema or milk and molasses, insertion of a rectal tube, and, in stubborn cases, pituitrin can be used.

Sudden death may be due to cardiac inhibition or heart clot. Patients should, therefore, be protected from emotional excitement and should not be allowed to get up too soon. In emergency, intracardiac injection of adrenalin with artificial respiration should be attempted. The open air treatment is no better than that in a properly ventilated room and with feeble patients is dangerous. Serum treatment is limited at present to Type 1 cases; other types do not seem to produce antibodies in the horse. If used at all, serum should be given promptly, not waiting for typing of the sputum; then, if typing shows that the case is not of Type 1, the serum must be discontinued. The danger is that of serum sickness as a late reaction and an acute reaction consisting of a violent chill, fever, cyanosis and myocardial weakness which occurs in from  $\frac{1}{2}$  to 2 hours following the injection.

Antobodies are at present prepared in 2 ways: the Von Tüne method in which the antibodies are precipitated by live pneumococci, and the Felton method, now used at Bellevue, where the antibodies are precipitated out with water. Reactions to the injection of these antibodies are quite severe and akin to that of serum injection. The vaccine of Lambert consists of 160 strains of various germs, of which 40 consist of strains of pneumococci. Chemical preparations of quinin are being advocated, but they are still in the experimental stage.

Convalescence should be slow enough to be sure that all of the myocardial damage has been repaired so that no chronic myocarditis develops.

Dr. Riesman in closing made a plea for an endowment for special research in pneumonia.

#### MERCER COUNTY.

A. Dunbar Hutchinson, M. D., Reporter.

The Mercer County Society met in the Carteret Club on the evening of March 9, Dr. Sill, the President, in the chair.

Dr. Henry O. Reik, Executive Secretary of the State Society, gave a most interesting account of the latest proceedings in the State Society, re-



fering particularly to the many Legislative Bills now pending or in the process of passing through the various Committees. The increase in the volume and several departments of the State Journal were emphasized, Dr. Reik expressing the desire to place before the Society members reading matter that will not only interest, but entertain and acquaint the membership with the progress of medical affairs throughout the state.

The important subject of "Periodic Health Examinations" was then concisely detailed and exemplified by a very well defined moving picture.

Drs. Howard Wiesler and J. J. Berman were proposed for membership.

### MIDDLESEX COUNTY.

Joseph M. Gutowski, M. D., Reporter.

The Middlesex County Medical Society held a meeting in the New Brunswick Y. M. C. A., March 24, 1927. Dr. F. C. Henry, Jr., presiding.

The applications of Dr. A. X. Urbanski and Dr. Lewis Wetterberg of Perth Amboy, for membership to the Society were reported favorably and they were elected as members.

Dr. McBride, Commissioner of Labor, was the speaker of the afternoon. His subject was "Compensation as Related to the Physician and Hospital". A general discussion followed the talk and many topics, which had confused physicians in their compensation practices were cleared.

Dr. McKiernan, a member of the Society, discussed the subject of more frequent meetings.

Dr. McKiernan also reported as the chairman of the committee for investigating the county physician problem in Middlesex. He pointed out that this office should be more active and keep abreast of the advances made in medical science. The office in Middlesex County had been permitted to degenerate to a name only.

It was decided to hold the next meeting within 2 months.

### MONMOUTH COUNTY.

F. J. Altschul, M. D., Reporter.

The February meeting of the Monmouth County Medical Society was held February 24, 1927, at the Berkeley-Carteret Hotel, Asbury Park. Dr. B. H. Garrison, presided, and about 35 members were present.

The motion of Dr. James Ackerman to amend the by-laws and allow physicians registered in another state and members of other medical societies to become associate members, was adopted.

The suggestion was made that a "Ladies' Night" be held at some future meeting, at which time the organization of a Woman's Auxiliary would be discussed.

Dr. Henry O. Reik then addressed the meeting, reviewing the various activities in which the State Society is interested at present, and noting the remarkable growth of the Journal during the past year.

Dr. Reik then discussed the subject of Periodic Health Examinations from various angles, following his talk with a moving picture film exemplifying the technic that might be followed in making such a health examination.

A buffet supper was served, and the meeting adjourned.

### MORRIS COUNTY.

Marcus A. Curry, M. D., Reporter.

The regular quarterly meeting of the Morris County Medical Society was held on the evening of March 8, at the Mansion House in Dover. President Plume presided over a gathering of about 35 members.

Routine business was transacted. Treasurer F. Grendon Reed indicated the healthful condition of the treasury by reporting a balance of \$1356.03. The special committee appointed to go over the Treasurer's accounts reported that the books had been audited for the past 5 years but unfortunately they could not be made to balance, there being an "error" of \$6.00 in favor of the Treasurer.

Two proposals for membership were presented: George J. Young and W. Blake Gibb, both of Morristown. Two transfers to the society were received: Arthur G. Lane, of Greystone Park, from the St. Lawrence (New York) County Society, and Adolph Weizenhoffer from the New York (New York) County Medical Society.

Secretary Lathrope read the minutes of proceedings of the Executive Committee, on which confirmatory action was duly taken: (1) Measures of relief were provided to lighten the burden of distress of a member. (2) A special meeting was announced, to be held in Morristown, in April, on the subject of Cancer Control, and Periodic Health Examinations, by Dr. Reik, and to be illustrated by moving pictures. (3) Discussion of the regular meeting in June brought out that the attendance at this meeting has been falling off and it was, therefore, decided to hold the next June meeting in Morristown at which a program will be put on by members of the society who are especially interested in the eye, ear and nose. (4) With regard to the establishment of chest or tuberculosis clinics in the county, the Executive Committee recommended to the Society that it give its approval to any measure which the County Tuberculosis Association wishes to take in conjunction with any physician in the county where they desire to establish the clinics. (5) The purchase of a projector was recommended so that it will be available for any visiting men who have lantern slides they may wish to show.

An invitation to a meeting of the Society of Industrial Physicians and Surgeons to be held at the Academy of Medicine in Newark, March 23, 1927, was read by the secretary.

A letter was read from Dr. Reik, Executive Secretary of the State Society, enclosing a "primer" that the Welfare Committee is anxious to have distributed to the laity and asking how many copies the county society could dispose of. As the April meeting will be more or less public it was thought that about 100 of these primers would be distributed as the subject deals with the relationship between the practitioner and the public.

The following resolution on the recent death of Dr. George W. V. Wilkinson was unanimously adopted, as prepared by the special committee:

"The Society learns, with profound regret, of the death of George W. V. Wilkinson, one of its most loyal members and one of many years standing.

Dr. Wilkinson was born in 1865. He entered New York University School of Medicine and was graduated with the degree of M. D. in 1889.

Dr. Wilkinson practiced in Morristown for

over 30 years, during which time he was a member of this society. His long years of practice were only broken when he volunteered his services to his country in the World War, during which he served in the Army with the rank of Captain.

On the death of James Douglas, Dr. Wilkinson succeeded him in the position of physician to the Board of Health of Morristown, in which capacity he served capably up to the time of his death on February 9, 1927.

During the last part of his life Dr. Wilkinson suffered a great deal, but bore it all with the patience and courage that of him were characteristic; facing his end, which he himself regarded as inevitable, with a heart calm and a mind serene.

Quiet and shy, Dr. Wilkinson met the exigencies of practice with cheerfulness and an untiring devotion to his work to which in the end he sacrificed himself.

**THEREFORE BE IT RESOLVED,** That we, the members of the Morris County Medical Society, do hereby extend our heartfelt sympathy to Mrs. Wilkinson and hereby record our deep sorrow at the loss of one of our oldest and most faithful members."

The scientific side of the program was entered into with high hopes and expectations which were fully realized. It consisted of a Symposium on the Toxemias of Pregnancy, by members of the society, as follows: Early Toxemia, William F. Costello, Dover; Eclampsia, L. E. Williams, Madison; Nephritic Toxemia, Clifford Mills, Morristown; Pathology, George J. Young, Morristown.

The men who read the papers were highly complimented on their interesting and educational work so painstakingly done, and by which the members were impressed with the value and benefit of this kind of a program, both to the society and to the men who prepare and present the papers. These have been promised for publication in the Journal.

Those taking part in the discussion were Drs. Glazebrook, Haven, Flagge, Lewis, Curry, McMahan and Frost.

The program was followed by a social session during which an appetizing supper was served.

#### PASSAIC COUNTY.

Donald B. Low, M. D., Secretary.

The regular monthly meeting of the Passaic County Medical Society was held March 10, at the Health Center Building, Paterson, N. J. There were 35 members present. Dr. O. R. Hagen presided.

Capt. Wm. B. Kenworthy, M. C., U. S. A., gave a talk on the "Medical Reserve Corps", explaining the purpose and advantages of this organization. A discussion followed by Colonel Quaker and Drs. Marsh and Hagen.

A very interesting talk was given by Dr. Harold Hays of New York City on "Ear, Nose and Throat Conditions and Their Recent Advances as Related to the General Practitioner". The paper was discussed by Drs. Henion, Connolly, Vreeland, Cogan, Hagen and Wassing.

Dr. Kline postponed the reading of his paper until the next meeting.

A motion was made and adopted that the so-

ciety endorse the activities of the Ladies' Auxiliary of the State Society and authorize the formation of such a woman's auxiliary to this county medical society.

A committee was appointed to make arrangements for health talks over radio station WODA, Paterson.

The meeting adjourned at 11:30 p. m.

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#### YOUR SOCIETY.

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If your society is on the bum,  
Damn the Secretary;  
If your members will not come,  
Damn the Secretary;  
Don't take hold and do your part,  
Don't help give the thing a start;  
Show 'em that you are smart—  
Damn the Secretary.

If the programs are a frost,  
Damn the Secretary;  
Don't help put the thing across,  
Damn the Secretary;  
If the grub's not what you like,  
Threaten to go on a strike;  
Don't help, for the love of Mike—  
Damn the Secretary.

When you get your bills for dues,  
Damn the Secretary;  
When you're asked to help, refuse,  
Damn the Secretary;  
Let him do it—he gets paid—  
Why should he be seeking aid?  
That is why his job is made—  
Damn the Secretary.

—Victor Ridenour, Philadelphia, in *The Artisan*.

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#### THE NIGHT WIND.

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The night wind whistles o'er the moor,  
And rattles at the cotter's crazy door;  
It sends wild gusts across the chimneytop,  
Then, dying to a whisper, seems to stop  
Till, with low moans, as of a passing soul  
It comes again, and hreathes in crack and hole  
And fans the glowing embers of the hearth,  
As might a traveler from the ends of earth,  
Anxious to tarry and remain at rest,  
Yet doomed to wander and to be distressed.

I sit and ponder in the glow,  
And watch the flickering shadows come and go;  
I think of all the days that have gone by  
And of their dreams—how with the days they die,  
And how the fairest flower that ever bloomed  
Meets the same fate to which the weed is doomed;  
Then, added to the wind I hear  
A dash of rain, as from the sky a tear,  
And nodding low, I dream the hours away  
Till night, and wind and rain end in the dawning day.  
—Ralph S. Cone.



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## THE CENTENARY OF LAENNEC

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In preparing this first sketch in the Historical Series of 1927 for the Atlantic County Medical Society, I have taken the liberty of going somewhat further back than the subject would seem to make necessary. If I seem to be taking you on an excursion through Western Asia, Europe, and North Africa, it is to review with you, first, the downfall of medical knowledge, and next, the relearning of it, in which Laennec took such an important part.

As we reach back into history, trying to piece together the origin of medicine, the first name we meet, after the Homeric gods, is Hippocrates. We know that such a high state of development does not come suddenly into being in the person of one man. But, aware as we are of the long and painful processes by which the race of man arrives at facts, it becomes evident that Hippocrates represents rather the culmination, the fine flower of a long line of unknown thinkers and doers in this phase of human endeavor. He represented the highest effort of the Greek intellect in medicine, just as his contemporaries represented it in art, philosophy and literature. When we consider that the medical art as we now practice it, and the character of the physician as we understand it, both date from Hippocrates, we realize that many must have preceded him whose names we do not know.

The invention of an alphabet and the art of writing were comparatively new—the Greeks

had been in possession of these discoveries but a few hundred years when they came to the height of their culture. At intervals in history some name stands out prominently which we justly call great. Almost invariably, however, that individual was the medium through which the efforts of many other lesser men were brought together, correlated, and given to the world. Such men were Hippocrates and Galen, and such a man was Laennec, the subject of this sketch.

When we think of the long stretch of time from Hippocrates to the present—more than 2400 years—and try to visualize what the state of medical knowledge might now be if we had been permitted to continue in the path he opened, we can only regret the great loss to mankind and hold in contempt the powers that forced 1500 years of intellectual night upon our ancestors.

After Galen, the one outstanding name in Roman medicine (third century A. D.), darkness shut down on the minds of Europe. Fortunately, the Greek culture planted by Alexander in Western Asia and Northern Africa was eagerly grasped by the newly forming Arab civilization. At Damascus, Bagdad and Alexandria, Greek medicine was zealously cultivated with the aid of Jewish and Christian teachers, and the secrets of Indian medicine were learned from Persian physicians living in Bagdad. So, from the tenth to the thirteenth century was a brilliant period in Arabian medicine.

In the meantime, medical knowledge in Christian Europe was limited to a combination of superstition and the superficial evidence of disease. When Europe reawakened, after the dark centuries, she took over bodily



Réné Theophile Hyacinthe Laennec

out of the Arabic a vast amount of medical lore. So accurate was the material that it was found immediately available in English and French translations, and recognizable traces of it remain today in that class of textbooks that are compiled from previous publications.

It was not until the seventeenth century that western Europe awoke and began—or was allowed—to restudy medicine. Italy, liberalized by the Renaissance, allowed dissection of the human body earlier than the northern countries, with the exception of The Netherlands, which at this time was constantly supplying Italy with new thoughts. As late as the middle of the sixteenth century, Andres Vesalius the great father of modern anatomy, was obliged to flee France and go to Italy, where he remained 25 years, pursuing his won-

derful work. In the English-speaking world the work of the Hunter brothers came 200 years later.

With the Reformation came a breaking down of the tyrannical religious domination set up when Paganism gave way to Christianity. Post mortem examination and the study of morbid anatomy were now tolerated, in spite of the fact that the victim might experience difficulty in collecting his scattered parts on Resurrection Day.

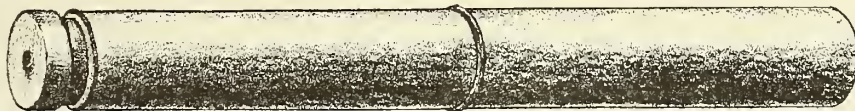
After these liberalizing influences had been at work for more than 200 years, there was born in the town of Quimper, in Lower Brittany, France, February 17, 1781, René Theophile Hyacinthe Laennec, who was destined to erect one of those mile-posts that mark the way of history. It is quite fitting that beside



his mile-post we should erect a shrine. A glance at the portrait of Laennec discloses his Celtic ancestry. He was from that numerous middle class from which the great of all ages are recruited. All three of the professions were represented in his family. His mother died early of tuberculosis, which was a scourge in Brittany then as now, and will continue to be until a different mode of life is adopted there. His father was an advocate, but aside from being the author of his existence, is said to have played no laudable part in the development of Laennec's character or education, which have proved such a benefit to mankind. Rather, it is recorded, he tried to use his son's position to advance his own. As to the truth of this the letters Laennec wrote to his father after his graduation contain no hint, nor do they bear malice. Some of Laennec's biographers, when they speak of his poverty, his ill health, his shiftless father and other hardships, become almost maudlin.

was at an end and its beneficent effect of freeing men's minds was in full swing—nowhere more than in science. Paris, the capital of bloodshed of a few years before, had become the intellectual capital of Europe. It was the ideal place for the master mind of Laennec to find itself. He threw himself into his opportunities. Cursed or blessed (as you like) by the stimulation of his tuberculous toxins, he did what so many have done before and since—worked through illness to success.

His student years at La Charité were crowded with study and contacts that formed the basis of his entire life work. In fact, there seems to be no time when he swerved or slackened in his indomitable ambition. There was no element of mere luck in his life, except that of being born just when he was needed. If the possession of a penetrating intellect, highly trained, and that rare ability to see clearly essential facts, coupled with the me-



Laennec's Stethoscope

A certain amount of opposition, I take it, is good for one. It is a certain combination of time, place and circumstance that gives every man his part in the drama of history, and as I study the events in the life of Laennec, I cannot be convinced that he had to overcome more than was good for the spirit. At the age of 6 years, after the death of his mother, he went to live with his uncle, a curé, who gave him an excellent primary education, including Greek and Latin. At 12½ years, he entered the home of his father's brother, Guillaume, a professor of medicine, in Hôtel Dieu, Nantes. Two years later, Laennec became a student in this school. The French Revolution was in progress and we find this boy of 15 years holding an appointment as a Military Surgeon, 3d class, probably under the guidance of his uncle. In the year 1800 he went to Paris and entered La Charité as a student of Corvisart.

The bloody part of the French Revolution

thodic mind of a true scientist gifted with the literary ability to record his observations, are what constitutes genius, then he was a genius.

As an undergraduate, he completed some 400 case histories, following many of them to autopsy, besides winning many prizes and publishing several papers. He was graduated from La Charité, June, 1804. His thesis for graduation was the thesis of his life, "The Doctrine of Hippocrates". At this time he wrote his father that he was able to translate from the Greek without the aid of a dictionary. He entered private practice, living in an apartment with his friend Bayle, a short distance from the Ecole de Medicin, for a small monetary consideration. His practice grew slowly but steadily, and he was never idle. In person, he was of slight build, rather fastidious; a long head crowned with abundant brown hair; a face of distinction and intelligence, with calm, reflective, blue-gray eyes, and mouth expressing restraint—in fact the face of the

poet that he was. He said of himself that he required a great deal of sleep to be fit for the next day's work, but a study of his daily schedule leaves one to wonder how he managed it. The schedule shows no time devoted to women, but although he never married, there must have been at least one woman in his life, though she does not appear.

He pursued without intermission his studies in pathologic anatomy. For 5 years he was editorial writer on a Medical Journal. He contributed 2 or 3 articles a year to current medical literature from his pathologic studies, and as this was the age of encyclopedias and dictionaries, he contributed many articles to them. Indeed, he played the rôle of encyclopedist for the scattered and unrelated bits of knowledge of diseases of the chest. In his pursuit of new knowledge he never ceased to be the physician and skillful therapist. Many of Napoleon's Breton soldiers were under Laennec's care in Paris. He relearned his Breton tongue and treated these homesick boys with true brotherly love.

In 1816, when he was 35 years old, his needed opportunity came when he was appointed visiting physician to Necker Hospital, in acknowledgement of his ability and the esteem in which he was held by such men as Corvisart, Hallé and Dupuytren. Soon after this, he accidentally discovered mediate auscultation. He tells how, not wishing to place his naked ear against the chest of a fat woman, he suddenly remembered the principle of conductivity of sound through certain solids, and picking up a quantity of sheet-paper, formed it into a roll; applying one end to the patient's chest and the other to his ear, he was surprised and delighted with the results. His long training and love of music was of great help to this pioneer worker in the fine differentiations in physical signs, in detection of pitch, etc., to a degree that we who lack it can hardly appreciate. With those qualities of genius, intellect and training which he, alone, of all his contemporaries possessed, he immediately recognized the possibilities of his discovery.

I hope I shall be able to convince you, as I myself am convinced, of his sheer greatness.

It is hard for us to realize the chaotic state of the knowledge of diseases of the chest be-

fore 1816. Auenbrugger had elucidated the principles of percussion in 1761, but his work was forgotten until 1813, when Corvisart again brought it to the attention of the profession. The knowledge of auscultatory signs was limited to what might be heard by the immediate application of the ear to the diseased chest. The principal thing to realize is that the relations of these were not known nor classified. In fact, the medical writing of the ancients was on a far higher level than the writings of even the late middle ages in Europe. But within 19 months, and in the light of his discovery, Laennec had taken the chaotic material, sifted it, added his own discoveries in pathology, naming and giving the significance of new symptoms and signs, welding the whole in the truly marvelous crucible of his powers. In June, 1818, he read his paper before the Academy of Sciences.

As you read his book today you are aware of the sure mastery he had of his subject. One hundred years has not added to nor discarded from the sum of his learnings. It was definitive. So perfect were his insight and erudition that he produced a finished work. The principles of physical diagnosis of the diseases of the chest originated by him have not been changed, because they were correct. In his writings he voices the regret that he was unable to diagnose certain conditions of the heart, because no method was known to determine them. Today, 100 years after his death, his requirements have not been met.

Of course, his revolutionizing discoveries and methods encountered opposition. The complacent and the lazy were compelled into activity. He met the opposition with the dignity of fine irony, and always held his own, though he was never pedantic. As a youth he had been inclined to be jocular, and a great tease. But he considered that his calling deserved respect, which he took great care to preserve, both in dress and manners. His fame grew and his financial condition eased. About this time he wrote to a friend, "As I look over the past year, I know I was risking my life, but I knew the book was worth more than the life of a man". How admirably he estimated his own worth!

In 1822, he was appointed to the Chair of



Medicine in the College of France, and a year later to a full professorship, made vacant by the death of his old master. Students from foreign countries began to crowd his clinics, including students from America.

It is impossible, in a limited sketch, to do more than mention his numerous contributions to our knowledge; suffice to say that whatever he touched he illuminated. Our medical nomenclature contains such reminders as Laennec's sclerosis, Laennec's râles, Laennec's tubercles. His many contributions to the knowledge of diagnosis and treatment of tuberculosis seemed to result from a combination of the desire to extend the work commenced by his friend Bayle, who died much too early, and his scientific interest in his own personal affliction. In 1823, he began work on the second edition of his book, but his health broke repeatedly. Much of his time was spent in Brittany, where he followed the principles he himself laid down for the treatment of tuberculosis, which are those in use today.

Occupying a modest chateau, where his father lived with him, he tried to regain his health. He was deeply attached to the simple Bretons and spent many hours in teaching and administering to the fisher and farmer folk of this region. Always delicate—not merely of frail constitution, but often incapacitated for carrying out his plans—he yet accomplished his great task.

Early in 1826 he went home for the last time, having all the symptoms of advanced pulmonary tuberculosis. He died August 18, 1826, aged 45 years.

It has been truly said of him that "he maintained the traditions of the past; safeguarded a unique route in the pursuit of discoveries and thus prepared the progress of the future".

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### PROLONGING EXISTENCE AFTER THREE SCORE YEARS AND TEN

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One cannot definitely state at what age senility begins. It may start during infancy. We know of many influences that cause senility, including the gradual wear and tear of the

body, which in the end always wears out, the hard struggle of the average medical practitioner for existence, and unsuitable diet which as a cause always will be widely acting. Accidental occasional influences usually are markedly potent. Fighting off Father Death by the removal of causes, is never entirely possible. The gradual dilatation of the alimentary tract and of the circulatory system is among the most difficult conditions to overcome. Even with moderate dietary indulgence the alimentary tract gradually becomes so distended that comfort requires the consumption of an amount of food that contains an excess of nutritive matter.

Rejuvenation of various functions may be helpful in some cases in prolonging life; but I feel free to proclaim that rejuvenation of sexual powers is not usually helpful in prolonging life in the aged. I have seen many old men die shortly after late-in-life marriages with comely young women; and I feel reasonably sure that the more sexual hunger is controlled and endured, the longer an individual may expect to exist.

I am in my eighty-first year. Because of that fact I am greatly surprised. Most of the members of my family of like character with me have passed out of life at or before sixty. I have an arthritic left knee, a crippled right heel, have had over 100 attacks of bronchitis and have severe pain in my lungs if I attempt to take muscular exercise within 12 hours after a meal. But nicotine, alcohol and coffee have not hurt me much, and until lately I have always taken enough exercise to fully oxidize the food I have eaten. I want to prolong my existence until I can get over to the public my ideas relating to the sanitary betterment of dairy products. Also, my parents left me a "chest" of such comfortable size that I have not had to work hard for a living. When an individual becomes aged, prolonged existence necessitates ability to live without damaging, overhard work. All of these influences are prolonging my life.

The prominent bases of my present struggle for existence involve a selected propriety in diet and ability to enjoy climatic advantages. I own a New Hampshire hilltop rocky farm which is a summer life promoter. I do

not like the humid atmosphere of Florida in winter, and with many other millions of people. I live comfortably during winters under mid-state winter atmospheric conditions.

Perhaps some of my dietary views may be of benefit to medicos who are as yet young in life. I have observed that most doctors of medicine who live long, have rather strong digestive powers, and are apt to gauge their patients' dietary powers by that of their own. Medical literature is replete with knowledge relating to the diet of infants; but one does not find overmuch reading matter relating to the diet of those who have advanced to senility; yet regulation of their diet is of prime importance.

Pay, who 50 years or more back, wrote a very good book on dietetics, stated that much of the metabolic actions of the internal organs were of a nature as to which only conjecture was possible. I am inclined to think that statement holds good today; with which opinion of course many younger men will not agree. One thing is certain, which is that if an individual lives long enough, and is to continue his existence, a decided change in dietary influence must be effected. My own experience affirms the opinion that when one does not take vigorous muscular exercise, he does not need much meat, and that unnecessary work for the stomach is followed by bodily infirmity. For him, an ordinary mixed diet largely composed of the entire cereals contains enough protein. I have found that for me *cane* sugar, besides being quickly absorbable, is more or less of a blood irritant; as is also excess nutriment even when well balanced. In conferring with my medical confrères, I asked one country practitioner how I could hope to oxidize all of the digested food I felt necessary to consume to secure the comfort of gastric distention. He said, "Eat bulky foods". That of course includes fruits, whole wheat, whole oats, and various vegetables. I see no way of making an aged person comfortable without ingesting more starch than is required for nutrition; but hydrated starch is soothing to the alimentary tract, and distensive bulk is efficacious in eliminating intestinal stasis; also the intestine can only convert a limited amount of starch into sugar. However, I take a bi-daily dose of sodium bicarb.

As I cannot take walking exercise, even with the help of a crutch, within 12 hours after eating a meal, I imitate the pugilistic practice of taking walking exercises before breakfast, and do not break my fast until I am hungry. It is a safe practice to acquire hunger for food at least once a day; and if the discomfort of hunger can be endured, the efficacy of hunger as a remedial influence, should be borne in mind in connection with dietetics as well as with some other human practices. New dietary habits can be acquired, either good or bad.

Light muscular exercise for the upper extremities is possible even when exercise in walking is prevented. Exercising in bed with more or less disabled inferior extremities, illustrates in an interesting way how the energy in food can be converted into the heating of bed sheets and cold feet through the frictional use of kicking in bed.

Assuming that the aged have acquired their years partially through mental activity, it is pertinent to point to the necessity of a continuity of mental activity by the aged. Multitudes of business men who retire prematurely to enjoy what money they have earned, die quickly after relinquishing business labors. It is not impossible for the physically damaged senile individual to prolong his existence, even if he has not lived a hygienically correct life in previous years. Multitudes of individuals who approach closely to the door of passing, manage to come back, and reestablish a livable status.

I am accomplishing some useful work through the practice of taking rest and sleep after every meal. I can use my brain to best advantage after midnight for several hours. These are simple statements but they are predicated on much study and dietary experimentation.

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## KEEPING THE NORMAL OBSTETRIC CASE NORMAL

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Three requirements for improving obstetric practice are: (1) More general use of the maternity hospital, especially for primiparas;



(2) early recognition of complications by the general practitioner and prompt call for aid; (3) greater care in handling the normal case. At the risk of seeming elementary, I have chosen for my subject, "Keeping the Normal Case Normal". This will be considered under three divisions: Prenatal care, conduct of labor, after-care.

Prenatal care has done more for the advancement of obstetrics than any other procedure during the last few years. It should include the history and physical examination of patient to ascertain the condition of her general health. A patient with tuberculosis or nephritis should not be treated as a normal case. A history of miscarriage or difficult labor is important in helping to make the next delivery normal. A history of hemorrhage is of great value in placing the physician on guard. The age of the patient, while not such an important factor as once considered, may at times make quite a difference in treatment. For instance, in a doubtful case one would be more likely to do a cesarean on a primipara over 40 years of age than on one who was 25.

If there is a history of a previous miscarriage without cause a Wassermann test should be made and, if positive, proper treatment given. If negative, these cases can often be helped by administration of  $1\frac{1}{4}$  gr. of protiodide of mercury twice daily for 2 or 3 weeks in each month. A patient with a history of still-birth without difficult labor or other complication should receive the same treatment, the value of which may be illustrated specifically by the following cases:

Mrs. B. and Mrs. C. had each had 4 miscarriages or premature births. The Wassermann was negative in both cases. After taking protiodide as suggested, each was delivered of a living child at term. In 2 other cases with negative Wassermann and history of 2 still-births each following normal labors at term, the patients have given birth to normal healthy children after administration of protiodide during pregnancy.

Miscarriage is sometimes caused by a lacerated cervix or a displaced uterus. If pregnancy is already established nothing can be done with the cervix, but the patient should avoid much exercise in the early months. A pessary

for displacement is often of value in preventing miscarriage. For this reason it is always well to make a vaginal examination early in pregnancy. This is contrary to some teaching but I have never seen a miscarriage produced by a careful examination. Many cases of miscarriage could be prevented if local conditions were known and proper advice given.

Early in pregnancy toxemia is shown by pernicious vomiting, later by albuminuria and eclampsia. Pernicious vomiting is often avoided or relieved by frequent meals rich in carbohydrate, but very limited as to milk, eggs, meat, and fruit. Little exercise is required during the first 3 months as the patient is easily tired. In severe nausea the patient should be in bed with pleasant surroundings and freedom from care. A solution of glucose given intravenously is sometimes of value. Lutein and cacodylate of soda have been used to advantage.

Albuminuria and eclampsia are usually avoided by a moderate diet, sufficient exercise and frequent bathing. It is just as important to regulate the quantity as the quality of the food. It is generally understood that meat should not be eaten during the last few weeks but the old idea of eating for two is still held by some and too much food is taken. The best means for regulating the diet is by weighing the patient frequently. The average woman should not gain over 20-25 lb., and the stout one less. The purpose in limiting the weight is generally supposed to be to keep down the size of the baby. This, as we know, is not always possible but the main reason is to prevent toxemia, as well as to prevent the storing up of a quantity of useless and troublesome fat which partially fills the pelvic cavity. That this is an important consideration is demonstrated by the case of Mrs. S., who came to me with a history of difficult labor and forceps delivery with her first pregnancy and a more difficult delivery with the second, resulting in a still-birth. Her physician in Chicago had recommended a cesarean section in the event of another pregnancy. She was two months pregnant when I first saw her and weighed 200 lb. It was suggested that she train down a little and let the question of a cesarean rest. She agreed to this and dieted

so well that 7 months later she had gained only 3 lb. She had a short labor and a living child was delivered by low forceps, the pelvis being contracted at the outlet. The baby weighed the same as the one which was still-born, 8¼ lb., but the mother weighed considerably less than at the time of the former deliveries.

Toxemia can be discovered and the patient's condition checked up by taking the blood pressure and examining the urine. The blood pressure is taken monthly at first and oftener after the sixth month. A blood pressure below normal often shows the need of a little tonic, while a high blood pressure acts as a danger signal and calls for action. It is wise to take the blood pressure early in pregnancy so as to note any difference as pregnancy advances. The urine is examined monthly up to the sixth month and then twice monthly or weekly if indicated. Early in pregnancy, toxemia is shown by the presence of acetone and diacetic acid; later on by albumin and casts.

Exercise should be varied. At first very little is required as the patient is often getting about with difficulty owing to the nausea and general malaise. Later on more is needed and near the end of pregnancy it is often necessary to insist on exercise as the patient is inclined to sit around at home. When the fetal head is very low, patients should guard against strenuous exercise, which may bring on premature birth. Automobiling and travel in general are not good for the average patient. Automobiling is especially harmful for a patient who has had a miscarriage.

Systematic rest should be taken and frequent bathing is essential to keep the skin in good condition. Sufficient dentistry should be done to keep the teeth in good order but difficult work should be postponed. Regulation of the bowels is important.

The breasts may be gently massaged, if painful and heavy, and a supporting binder applied. During the eighth and ninth months, the nipples should be bathed frequently with a solution of borax in 50% alcohol, followed by albolene or cocoa-butter. An effort should be made to draw out inverted nipples. Some patients should wear a corset giving considerable support while others should have no

support for the lower abdomen, thus encouraging the child to settle into the pelvis.

Pelvic measurements should be taken and, while not an absolute guide, they are of the greatest importance in some cases. It is sometimes difficult to estimate the thickness of the pelvic bones correctly. A patient may have a fair sized pelvis but on account of heavy bone structure may have great difficulty in labor. Another with a deformity apparently sufficiently marked to require a section will deliver herself if the baby is small. It is the relative size of the pelvis and the head with which we are most concerned and it is only by watching a patient through the later months of pregnancy that any fairly accurate opinion may be formed.

A pelvic examination should be made early in pregnancy to determine the position and the size of the uterus as well as to diagnose the presence of fibroids or ovarian cysts. An ectopic is occasionally detected. An examination is often required for the diagnosis of doubtful pregnancy. A patient recently told me that she had been having prenatal care for 8 months before she was examined and found not to be pregnant. Later in pregnancy the position of the child is determined and the relative size of the head and pelvis estimated. If it is a breech presentation, the question might arise whether to try to change it to a vertex. Bearing in mind that many breech presentations are normally changed to vertex during the last weeks of pregnancy, it is well not to try to turn the fetus before the end of the eighth month. In breech cases, arrangements should be made for extra assistants at the time of delivery, or hospital care advised. An examination will determine whether the child is living. Twin pregnancy can generally be diagnosed at the seventh month.

In the last month a prognosis of the case may be made and a fairly accurate idea obtained as to whether the labor is going to be slow and difficult or short and easy. If a note is made of this, it is of great assistance when the call comes from the patient.

Patients should know what to have ready if intending to stay at home and also what to do if going to a hospital. All primiparas should be urged to go to a hospital.



## CONDUCT OF LABOR

Don't fail to wear sterile rubber gloves for every vaginal examination made during labor as well as during the last month of pregnancy. The wearing of sterile rubber gloves has done much to prevent sepsis and should never be omitted.

Don't make a vaginal examination until patient is prepared for labor. I refer to the custom of examining a patient at home to see whether she is in labor before going to the hospital. This is careless technic and should be avoided when possible.

Don't fail to sterilize every article used in a labor case.

Don't decide it is time for labor to come on and try to start it with castor oil and quinin or pituitary extract, except in very exceptional cases. Especially is this to be avoided in primiparas. It makes the labor harder and often causes complications. If labor must be induced, it is better to use a bag or rubber tube.

Don't let labor progress far without patient having an enema, which should be repeated every 8 hours during labor. Bladder should be emptied frequently.

Don't hurry the labor in any way, unless for some urgent reason.

Don't urge the patient to bear down in the early stages of labor as she will get tired out before the time comes for this work.

Don't fail to give the patient a hypodermic of morphin if labor is hard and prolonged.

Don't give this hypodermic if delivery is expected within 2 hours, on account of danger of asphyxia of baby.

Don't rupture the membranes too soon—before the cervix is dilated or dilatable.

Don't delay rupture of membranes too long and thus prolong labor.

Don't hesitate to examine patient under an anesthetic if you are unable to diagnose conditions without it.

Don't forget to listen to the fetal heart during labor, especially near the end of labor.

Don't fasten the patient's feet up in stirrups except in special cases. Deliver the baby with the patient's feet on the table or bed, thus avoiding considerable strain on the pelvic and hip joints.

Don't neglect to iron out a tight perineum under anesthesia, using tincture of green soap or preferably sterile liquid albolene as a lubricant.

Don't apply forceps without being absolutely sure of the position of the head, and then only if cervix is dilated or dilatable. Also be sure the bladder is empty.

Don't have patient too deeply under the anesthetic while making traction on forceps.

Don't have patient too deeply under the anesthetic when the head is born after a prolonged labor, as the shoulders may stick if the baby is large.

Don't give ether in place of chloroform, except in special cases, as the patient is apt to remain anesthetised too long.

Don't give pituitary extract for a final push in a prolonged labor; use forceps.

Don't handle the baby roughly; it may be injured.

Don't wipe out the baby's mouth with dry gauze as it may cause abrasions.

Don't hurry delivery of the placenta; take plenty of time, unless there is hemorrhage.

Don't fail to take time to repair the perineum properly, making careful examination for lacerations in the vaginal wall, as well as in the perineum. Results are most gratifying if a good repair is made.

Don't give a douche after labor except for hemorrhage; even then packing with iodoform gauze is safer.

Don't fail to hold the fundus for at least  $\frac{1}{2}$  hour and thus help to prevent hemorrhage. Ergot and pituitary extract may be given with benefit.

## AFTER-CARE

If the normal case has been properly handled up to this time, there ought to be nothing further to do but attend to the wants of the mother and infant, being scrupulously clean at all times. Change perineal dressing frequently using sterile precautions.

A special abdominal binder may be applied one hour after labor and removed on fifth day.

Be sure the bladder does not become overdistended. If ordinary procedures are not effective, catheterize.

A loose breast binder may be used if breasts are full and heavy. Do not massage breasts

when full. As a rule, they will soften themselves. If necessary to pump breasts, use electric pump and make no pressure on the breasts.

Nipples should be bathed with boric acid solution before and after each nursing. Lead shields are useful if nipples are tender; they should be washed and boiled for one minute before the nursing. When lead shields are not used apply albolene and cover nipples with sterile gauze.

#### DIET

Liquid on the day of labor; soft on first day postpartum; light on second day postpartum; full on eighth day postpartum.

Patient sits up in bed on fifth day, out of bed tenth day, discharged twelfth or thirteenth day. On and after fifth day turn patient on abdomen for 20 minutes twice daily.

Give castor oil, 1 oz. at 6 a. m. second day, then do not give any laxative which might affect the milk supply. Give mineral oil, 1 oz., every night and an enema when necessary.

Don't give a douche, even if temperature is up. There is great danger of washing infectious material up higher by means of a douche.

The advance of obstetrics will depend largely on the determination of each one of us to use his best skill in even the simplest case, and to make every effort to keep the normal case normal.

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### THE MAYO CLINIC

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(Being the impressions of a patient as well as of a visiting surgeon.)

The little sluggish Zumbro River runs through the town of Rochester, Minnesota, at the slow pace of one inch in twenty-four hours. The rolling prairie, scorched by intense heat in summer and bitten by extreme cold in winter, has always been a good wheat growing country; but it would have taken vision even greater than that of the Mayos to have predicted that this new and sparsely settled country could grow great surgeons and in a short space of time become a world center for medical and surgical activity.

As it is with Abraham Lincoln and other great men, misconceptions and misstatements are sure to be extant as to the hereditary history and life of the Mayo brothers. I know for a fact that much that is written often occasions the victim's disgust rather than amusement. But celebrated men seldom appear *de novo* without cause or reason.

Coming from sturdy English stock, Thomas Mayo, one of the Mayo forebears, was a doctor of repute who served for a long period of years as President of the Royal College of Physicians in England. The father of the boys was a truly noted man. The mother also was a remarkable woman. It is told that once in the early pioneer days of Minnesota, in the absence of her husband she was obliged to put on male attire and, armed only with rude farming implements, led a number of her girl friends with like attire and equipment in a successful sortie against hostile Indians. Dr. William Worrell Mayo, the father, first taught physics in the Bellevue Medical School, New York City, and from this college in after years received a degree.

Then, after some years in St. Louis, the elder Mayo moved to Minnesota, where both his sons were born. Dr. William Worrell Mayo was a general practitioner of medicine with all that this implied in those early pioneer days. Graduating in Medicine (1883) at the University of Michigan, the elder son, William James Mayo, came back to Rochester to assist his father. It had been his custom to spend his vacations in helping him in his practice or clerking in the drug store.

Now an event happened in Rochester that is often called "an act of God". A cyclone struck the town. Some were killed but many were injured. The ways of the Lord may be past finding out, but the fact remains that this cyclone started St. Mary's Hospital. It is idle to speculate as to what would have happened if that cyclone had not occurred; whether St. Mary's Hospital and with it the Mayo Clinic and Foundation, would ever have been established. Possibly the prospect of a larger arena than that afforded by a little town of a few hundred inhabitants on the sluggish Zumbro in the great Northwest would have enticed men of such positive talent to the larger cities and to the great medical centres.



When Dr. W. W. Mayo's second son, Charles Horace, graduated (1888) from the Northwestern Medical College, Chicago, he came back to Rochester and joined his father and brother William in their work. St. Mary's Hospital was getting strongly under way. It was a wonderful age to begin a surgical career. A new surgery was being born. Antiseptic surgery of only a few years' growth was rapidly changing to aseptic surgery. New operations, new methods, brilliant results, were the order of the day. Surgical procedures of a magnitude never before dreamed of became a possibility. A new surgical literature was being written. The Mayo brothers, quickly finding their forte in surgical work, and quick to think and act in the new line of surgical technic, soon became leaders in this movement. Figuratively speaking, they posted Emerson's aphorism about the mouse-trap over their front door. And the world came. It was not luck or chance, excepting that the Mayos were born at the psychologic era when surgery was making the most wonderful expansion in all its history. Quick to grasp the importance of the new ideas, the Mayos have never been satisfied to be limited to their own. They early began their visitations to other clinics, at home and abroad, bringing back to Rochester new patterns for their cases and new ideas for improving and expanding their results. Their work and activities at this time appear ceaseless. They believed firmly in the advantages derived from attending meetings of medical societies. At first unknown to the surgical world, the important and remarkable papers that in the last decade of the last century began to appear from one or the other of the Mayo brothers made this whole surgical world "sit up and take notice". Where other surgeons had reported at the most a few score of operations in a specialized line of work, now we had hundreds and even thousands of operations reported from St. Mary's Hospital, Rochester, Minnesota, by either Charles or William Mayo. These were all scientifically and statistically arranged, and with results, moreover, such as were never before obtained by any surgeon.

At a meeting of the Surgical Section of the American Medical Association held somewhere

in the late nineties, I remember asking in amazement, "Who is this Dr. Mayo? Where is Rochester?" And I determined then and there to go and see the place where such surgery could be done.

I will not take much time to write a description of Rochester, Minnesota. The little town in 1900, with its 3000 inhabitants, its characteristic western false-front wooden buildings, its wooden sidewalks, its almost frontier appearance, would not at first sight inspire a belief in its medical and surgical importance, and it was not long after this, as I put my foot off the train, that the hackman asked me, "Are you a doctor or a patient?" Even then, only those two kinds of passengers arrived.

Twenty-five years pass. Again I step on the platform at Rochester. Although I had been there since my first visit, I was unprepared for the changes that met my eye. The Rochester Special is a train of Pullmans, running like a "Broadway Limited", between Chicago and Rochester. Not a dozen, but a hundred passengers were arriving at the station. One's eye caught the evidence of metropolitan skyscrapers, the traffic officer, the hustle, and all the noise of city life. In the lobby of the skyscraper Kahler hotel, one saw but little difference from the Astor, the Biltmore, or the Copley Plaza, except the prices. At the desk one may obtain a list of the day's operations. One day's sheet is shown:

#### MAYO CLINIC

Tuesday, September 29, 1925

#### SURGICAL LIST

<i>General Surgery</i>	Dr. A. C. Broders
Dr. W. J. Mayo	Dr. H. D. Caylor
Dr. C. H. Mayo	<i>Laryngology, Oral and</i>
Dr. E. S. Judd	<i>Plastic Surgery</i>
Dr. D. C. Balfour	Dr. G. B. New
Dr. W. E. Sistrunk	Dr. F. A. Figi
Dr. J. C. Masson	<i>Oto-Laryngology and</i>
Dr. J. deJ. Pemberton	<i>Rhinology</i>
Dr. V. C. Hunt	Dr. H. I. Lillie
Dr. S. W. Harrington	Dr. B. E. Hemstead
Dr. Walters	Dr. C. M. Anderson
<i>Orthopedic Surgery</i>	Dr. W. B. Stark
Dr. M. S. Henderson	<i>Ophthalmology</i>
Dr. H. W. Meyerding	Dr. W. L. Benedict
Dr. H. T. Jones	Dr. A. D. Prangen
<i>Neurologic Surgery</i>	Dr. W. I. Little
Dr. A. W. Adson	<i>Proctology</i>
<i>General and Thoracic</i>	Dr. Louis A. Buie
<i>Surgery</i>	<i>Dental Surgery</i>
Dr. S. W. Harrington	Dr. B. S. Gardner
<i>Surgical Pathology</i>	Dr. L. T. Austin
Dr. Wm. C. MacCarty	

## LIST OF OPERATIONS

*St. Mary's Hospital, 8:00 a. m.*

Room III—Dr. W. J. Mayo.

Cholecystitis with stones. Explore. Duodenal ulcer. Explore gall-bladder, appendix and ileocecal mass.

Room IV—Dr. W. J. Mayo.

Pelvic tumor. Explore. Stone in horse-shoe kidney. Left pelviolithotomy.

Room V—Dr. E. S. Judd.

Abdominal tumor. Explore. Vesicovaginal fistula. Examine. Obstructive jaundice. Cholecystitis with stones. Explore.

Room VIII—Dr. E. S. Judd.

Chronic cholecystitis. Explore gall-bladder. Examine pelvis and appendix. Duodenal ulcer with obstruction. Explore.

Room II—Dr. D. C. Balfour.

Gastric ulcer. Duodenal ulcer. Explore gastric ulcer and pylorus. Carcinoma stomach. Explore.

Room I—Dr. D. C. Balfour.

Pyloric obstruction. Chronic duodenal ulcer. Explore.

Room VI—Dr. W. E. Sistrunk.

Adenoma thyroid. Varicose veins. Incision and ligation. Carcinoma rectosigmoid. Anterior resection. Carcinoma rectum. Posterior resection.

Room VII—Dr. V. C. Hunt.

Retroverted uterus. Internal shortening round ligaments. Excision rectal polyp. Left inguinal hernia. Repair. Papilloma right breast. Simple amputation. Menorrhagia. Dilatation and curettage. Tuberculosis right kidney. Right nephrectomy.

Room IX and X—Dr. J. S. Lundy.

Regional anesthesia.

*Colonial, 1:30 p. m.*

Room I—Dr. S. W. Harrington.

Adenoma thyroid. Carcinoma right breast. Radical amputation. Fibromyosarcoma back. Excision and examine. Chronic empyema. Open operation. Tumor right groin. Explore.

Room II—Dr. M. S. Henderson.

Nonunion right femur. Bone graft. Arthritis. Manipulation left knee. Periarthritis right shoulder. Manipulation. Torticollis. Muscle section.

Room III—Dr. J. C. Masson.

Fibroids. Hysterectomy. Cholecystitis. Cholecystectomy.

Room IV—Dr. J. S. Lundy.

Regional anesthesia.

*Kahler, 8:15 a. m.*

Drs. P. P. Vinson and H. J. Moersch.

Lung abscess. Bronchoscopy. Functional dysphagia. Esophagoscopy. Carcinoma of esophagus. Esophagoscopy. Cicatricial stricture of esophagus. Dilatation. Cardiospasm. Dilatation. Cicatricial stricture of esophagus. Dilatation. Indeterminate esophagus. Esophagoscopy.

*Kahler, 1:30 p. m.*

Room I—Dr. J. deJ. Pemberton.

Exophthalmic goiter. Thyroidectomy. Exophthalmic goiter. Thyroidectomy. Adenoma thyroid. Adenoma thyroid.

Room II—Dr. J. deJ. Pemberton.

Exophthalmic goiter. Thyroidectomy. Exophthalmic goiter. Thyroidectomy. Adenoma thyroid.

*Worrell, 8:00 a. m.*

Drs. G. B. New and F. A. Figi.

Cleft palate. Deep alcohol injection for trifacial neuralgia right third division. Scars both temporal regions. Excision. Tuberculous gland right upper cervical region. Curetting. Lesion right lower lip. Excision. Angioma left cheek. Diathermy.

Drs. H. I. Lillie, B. E. Hempstead and C. M. Anderson.

Fourteen patients for tonsillectomy under local anesthesia. One patient for left antrum window.

Room 109—Dr. L. A. Buie.

Proctology, Diagnosis and Treatment.

Dr. L. A. Buie—10:30 a. m.

Fistulotomy.

*Worrell, 1:30 p. m.*

Drs. B. S. Gardner and L. T. Austin.

Nine patients for infected teeth. Alveolotomy. Block anesthesia.

*Worrell Annex Hospital**Dermatology and Syphilology, 8:00 to 10:00 a. m.*

P. A. O'Leary, W. H. Goeckerman.

Room I—Diagnostic spinal punctures.

Room II—Intraspinal arsphenaminized serum injections. (Swift-Ellis technic).

*1:30 p. m.*

Room III—Intravenous arsphenamin administration.

Cross bridge from Worrell, 2nd floor.

*Damon Hospital*

Radium Therapy—Dr. Harry H. Bowing.

Daily by appointment. Miss Terry, Desk R.

*Curie Hospital*

X-Ray Therapy—Dr. A. U. Desjardins.

8:30 a. m. to 5:00 p. m., daily except Saturday.

8:30 a. m. to 12 m. on Saturday.

The large Mayo clinic building had been erected since my last visit. Besides those at St. Mary's Hospital, now enlarged to greatly increased capacity, one sees listed here operations at the Colonial Hospital, the Worrell Hospital, the Kahler Hospital, the Damon Hospital, the Curie Hospital. And in addition to these there are the Alfred Convalescent Hospital, the Samaritan Convalescent Hospital, the Zumbro Hotel, the Stanley Hotel (nurses), and many other small buildings devoted to the purposes of the clinic. Even the Kahler has 210 hospital beds and 150 beds for convalescent patients—these besides its 250 beds for general hotel purposes and half-dozen operating rooms. The capacity of all this hospital equipment must be immense. It is all part of and under the control of the clinic proper and most of it is so centralized that one



does not even go beyond a sheltering roof, as subways, like those connecting the Grand Central Station in New York City with the Biltmore and Commodore and other hotels, are also here. All these subways have their plainly marked signs for direction of travel. These lead mostly to the clinic.

Rochester is surely now on the map as a surgical city, and one rubs one's eyes when he finds that there are about 500 new registrations at the clinic every morning.

Not only is Rochester a surgical city, but I wish to affirm that there is nothing like it in the world. Where else can one witness in one place (if it were possible) a hundred plus operations in one day?

As the writer had just recovered from a long illness, the opportunity presented to obtain, at the Mayo Clinic, an opinion of his present condition. Application was accordingly made at the office of Registration in the new building devoted to the business of the clinic. After waiting in line for my turn, I simply stated I was a New Jersey physician visiting the clinic, and that I wished to register as a patient. A brown envelope was handed to me with the typewritten names of the physicians to whom I was assigned, together with those of 2 consulting physicians. My registration number was 526,199. I was told to take the envelope and present it at a certain desk in the large reception room in which I was standing. One word may be written about this room. It is about 100 feet square. The registration bureau is on the right. Large comfortable chairs (not benches) with good upholstery, say 200 in number, occupy the center of the room. These are for the patients of the clinic awaiting their call. Located around the room are a number of desks marked by a large illuminated number, such as No. 12, No. 18, or No. 25 B. At each desk is a young woman attendant in trim uniform, but without cap. These girls are often rosy-cheeked farmer girls, averaging in age from 16 to 20. They are not powdering their noses nor looking in tiny mirrors, but they are neat and trim, attentive, patient, informing and attractive. They attend strictly to business. There are about 40 of them. A unique feature of this large, well lighted and well ventilated room with its walls

lined with attractive tiles, is the newsstand, like that in a railroad depot, where the tedium of a long wait can be relieved by the purchase of papers and literature. Here are also scales where you can be weighed, and places where you can purchase things you require while passing through the clinic, such as the large 2 qt. sterilized bottle with its appropriate tag neatly tied on with a string, and these they demand that you purchase (for 15c) for collection of the necessary 12 hour specimen of urine. This large room is attractive and not repellant, as some doctors' waiting-rooms are too prone to be, especially when the work has grown to the magnitude of a clinic. Although a hundred or so patients were already here, the conditions were such that one did not dislike even such a tiresome ordeal as waiting for the doctor.

I presented my brown envelope to the young girl at my designated desk, who took it, recorded it, and told me to sit down and wait until she called me. In about 10 minutes I was conducted upstairs for my first examination. All my clothes removed, I was questioned and my answers recorded on the sheet of a long questionnaire; I was listened to and thumped, percussed and discussed, probed and inspected. I was relieved that I had so few cavities to be examined. After an hour or more, having been overhauled in the perpendicular, horizontal and upside down position, I was told to dress. Next several cards were made out, all in different colors. These were my tickets of admission to my other executioners—one to the x-ray department, one to the dental department, one to the blood-drawing department, one to the electrocardiogram machine, one to the urinalysis technician, one to the elimination technician, another to the Wassermann expert. Then I was given letters to each of the consulting doctors who were to make the final survey and tell whether the wreck was worth the salvage.

As I was under the customary hypnotic spell, I was too benumbed to ask if I would survive. I took my original 526,199 envelope in my hand, filled with the different colored tickets of admission to the various theatres for my future entertainment. I must say right here that I give my admiration to the brains

that conceived the system of the routine that I was about to undergo. Remember, this huge clinic building is of many stories. Remember that there are several hundred going through the mill at the same time—patients of all conditions of activity or decrepitude—wealth or poverty—there is no distinction. I, a physician, found myself sitting waiting my turn next to a full-blooded Apache Indian. There is no confusion. There is no discomfort. The waits are short. The place is clean. The surroundings are pleasant. You are more interested than you are bored. Your cards are purposely of different colors so as to expedite your journey through the clinic. On each card is plainly printed the number or letter of the desk, the floor, the room, and the time at which you are to present it. A cheerful smiling girl knows by the color of your card as you approach what you want, even before you inquire. You are instantly routed, and illuminated signs guide you through many doors and long corridors or up stairs so that you cannot lose your way. The patients pass in a ceaseless stream, like the travelling construction line of Ford motor cars.

When I arrived at the room where my blood was to be drawn preparatory for my "blood, chemical", I was distressed to find it full of others waiting their turn, and as this test requires a fasting stomach, I had been fasting 12 hours. But soon I was called into a little room where 3 young girls pounced upon me and, as Franklin K. Lane wrote after a like experience, treated me as if I was a fountain filled with blood. These girls are not doctors—only technicians. I meekly submitted to be bled, and while my life substance was dripping away, I asked how many people they bled a day; I was quite squelched by the superior way my 19 year old executioner replied, "About 50 an hour".

It will not be necessary to tell my experience in further detail more than to say that after passing through the hands of 15-20 doctors during a period of 3 days, the physical examination of my earthly image was not even completed. After 2 expert x-ray specialists, who checked and counter-checked the findings of the x-ray technician as a final step, one ultimate consultant examined me and all

my findings and the second consultant re-examined and cross questioned my records and behavior. I found out after some effort that I was 90+ sound! I thought this ought to pass me into Grade A and I then and there resolved I would spend my remaining days at the clinic in the guise of a visiting surgeon.

Each day there are so many operations displayed that it is rather difficult to make a choice. Of course one must see Will and Charlie (no one here calls them anything else) in action, and as they operate only on alternate mornings, this takes the better half of 2 days. For these veterans of the scalpel are now reserved chiefly for the most difficult and intricate cases. One learns more than surgery from these men. Judd, Balfour, Hunt, Henderson, Masson, Sistrunk, Pemberton, Harrington, Walters and many others are doing great work, the operations extending way into the late afternoon. At Lillie's throat clinic one can stand behind the operator and see him remove at 5 minutes headway all kinds and varieties of tonsils. He averages about 20 to 30 cases daily. If the patient is over 8 years of age, local anesthesia is used. The tonsils are grasped with forceps, the patient sitting in a dental chair upright. Seldom is a tongue depressor used or, if so, it is held by the patient himself. The sharp dissector or scissors and sometimes the snare I saw used. It is Lillie's routine practice to tie both the superior and the inferior tonsillar arteries. About  $\frac{1}{2}$  of 1% of post-operative hemorrhage is observed. No blood clotting tests are employed. The patient remains in the hospital 2 days and is under observation for one week.

One is well repaid for a visit to Dr. MacCarty in the pathologic department. Dr. MacCarty personally attends every operation, even if only for a few minutes, at St. Mary's Hospital. The original complete record of the case is in his hands in its compact manila envelope (the same in which the case is filed on discharge from the hospital). I asked Dr. MacCarty how long it took him to render his report of the section of a tumor during its removal by the surgeon, and he said his record time was  $\frac{3}{4}$  of a minute, but the average was  $1\frac{1}{2}$  minutes. I asked him what recent work he considered the most important in his laboratory, and he replied the isolation and identi-



fication of certain cancer cells. He has 28 assistants and the cleanliness and the appointments of his laboratory were a pleasure to see.

One of the greatest and also the most unique figures and personalities of the clinic is Dr. Henry S. Plummer. He is a difficult man to see but I was resolved to interview him. I found he was then too occupied to receive me, but when I sent up word that I wanted to see him about "Hospital Construction", I found this an open sesame. Dr. Plummer was sitting in an armchair in his inner sanctum, with his feet on the table, smoking a long black cigar. Presenting me with one of a similar breed, he gave me an hour of his valuable time. He told me that his thyroid work gave him his best satisfaction. Suddenly he arose and asked if I would like to see something. I then followed him down to the street and entered with him a high-power Packard. After a short drive we approached a sort of feudal castle, perched high on a rock on one of those characteristic Minnesota bluffs. This was Dr. Plummer's home. The building looked as if it came out of the Middle Ages, but it has been craftfully constructed in these modern times. Its size can be comprehended, as he told me he bought 100 tons of coal each winter to keep it warm. He then, with the delightful naïveté of a child, conducted me through all its rooms, and we inspected it from kitchen to closets. He said he had been unable to get a picture of the house except from an airplane. Dr. Plummer then left me at my hotel, having given me a genuine thrill by his attention and kindness.

I next obtained a full set of the record blanks that have been so widely known and adopted by other clinics and hospitals. The filing department for these records, over 60,000 a year, is a marvel of efficiency. It well repays one to take the time to make them a study. As about 200 typewriters are in use at the clinic, one can comprehend the work. An unusual but important feature of this work is the statistical department. This department is responsible for much of the valuable data that comes from this clinic. A small idea of the labor required can be obtained when one finds that 2502 histories are written up in one week. Incoming mail numbers 12,000 pieces a week, outgoing 15,000.

Much gossip has been extant as to the business methods of the clinic. When one remembers that over 60,000 patients pass through the clinic in one year and that the expense of operating is between one and two million dollars, the figures are large. "Early in his practice Dr. William Mayo adopted the business policy that each patient should pay according to his means, and this policy has been followed by his sons and the clinic through all the subsequent years. Patients are cared for regardless of their ability to pay. No form of treatment is priced in advance. After the work is completed a charge is made which seems fair according to the services rendered and the patient's financial resources. Every patient who is able to pay a fee is required to do so. A note has never been taken from a patient. Neither has any mortgage ever been permitted to be placed on property in order that the clinic might be reimbursed. The patient's promise to pay has been considered sufficient. ....About 30% of the patients pay nothing to the clinic and 25% pay barely enough to cover the cost of examination."

An interesting, instructive and important feature of the clinic is the Physicians' and Surgeons' Club. A visiting doctor is expected to join this club on his arrival in Rochester. Initiation fee and dues combined are only \$2.00 for which large sum one has the entrée to all operations, lectures and clinic activities. In the large assembly room of the clinic evening meetings of the club are held a number of times each week. At these meetings reports of operations, lectures by the staff or noted visiting surgeons are made and discussions of interest take place. It is one of the valuable assets of the clinic.

As this paper deals with the Mayo Clinic, the Mayo Foundation will not be included. But it is a wonderful conception with sky-high limits of usefulness and benefaction. As the Mayos themselves have contributed over 2 million dollars to the Foundation, one sees that they have put more than their hearts into the plan. This enterprise is described in a little book recently published (Saunders, \$3.50) called, "Sketch of the History of the Mayo Clinic and the Mayo Foundation". Everyone should read it.

## PROPHYLAXIS AND TREATMENT OF OPHTHALMIA NEONATORUM

LOUIS WEISS, M.D.,  
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In 1882 Credé suggested the conjunctival use of a 2% silver nitrate solution to prevent blindness in the new-born. This remedy was widely adopted and is still extensively used. Experience has taught us, however, that the silver salt often acts as an irritant and sometimes aggravates the inflammation. These objections were overcome by evolving other silver preparations, notably argyrol and protargol. But, after unlimited use of these substitutes, we are still searching for a successful remedy. In short, the present method of attacking the disease by aiming to destroy the bacteria *in situ* is a failure.

Let us consider the subject from another point of view. Let us rather direct our attention to rendering the conjunctiva unsuitable for bacterial growth. We need an agent that will make the conjunctiva anemic; an agent that will temporarily suppress but not destroy the normal activity of the conjunctiva; an agent that will lessen the flow of blood, and hence stop furnishing inflammatory material to the affection, as fuel to a fire.

The physiologic effects of cocain used in solution locally on mucous membranes are twofold: the mucous surface is blanched and rendered anesthetic. After the use of cocain solution in conjunctivitis, an ischemia is produced in the affected area, a starvation of inflammation. The anesthetic effect makes the inflamed area painless. Cocain solution, therefore, is the remedy indicated in ophthalmia neonatorum.

### PROPHYLAXIS

The first step is the cleansing of the eye area, which should take place immediately after the birth of the child. It should be performed gently and carefully. Do not evert the eyelids. Some think it is necessary to get water beneath the lids. This is superfluous and may be injurious, when the infant is ineptly handled. The conjunctivas are constantly and automatically being cleansed by a

salt solution, the lacrimal fluid. Nature does it perfectly. Our cleansing should be confined to the outside of the eyelids, their edges and inner and outer canthi, with the eyelids closed. These cleansings should be done with small sterile cotton or gauze wipes. Warm sterile water may be used.

No pressure upon the eye should be applied in cleansing the lids. Undue pressure and friction, especially if the eyelids are everted, may cause traumatism of the conjunctiva, a breakdown and infection of the mucous membrane, and terminate in a purulent discharge or purulent conjunctivitis. Excessive pressure may involve the eyeball and cause ulceration of the cornea, traumatic cataract, iridocyclitis, uveitis, and other complications. In a case referred to me about 4 years ago, the lens of one eye was expelled through the ulcerated cornea, 2 weeks after the child was born. This unfortunate complication was caused by repeated, rough handling.

After the toilet of the eye area has been attended to as suggested, several drops of a 4% cocain solution should be instilled into the lower conjunctival sac of each eye, the fingers being used gently, either to draw the lower lids downward, or to separate the eyelids. The strength of the cocain solution should be 4%, not less; it may be more if desired. Cocain instillations should be made once daily for 7 days, the period in which ophthalmia usually occurs. If the conjunctivas remain normal, only cleansing is needed thereafter.

### TREATMENT

If, however, ophthalmia or purulent conjunctivitis ensues, the following treatment should be instituted. This will require constant attention for a day or two, or until the affection is conquered.

Every 2 hours, or more often if necessary, instill several drops of a 4% cocain solution into the lower conjunctival sac of the eye, or eyes affected. Between instillations, have a trained attendant separate the child's inflamed eyelids with the fingers, gently, using no pressure. When the pus appears at the edges, let the lids close and wipe the expressed pus with a small piece of sterile cotton or gauze, which is then deposited in a waste receptacle conveniently placed. This procedure must be



repeated every few minutes, because the formation of pus is continuous.

There is no need for the attendant to press out the pus. The exosmosis, or flow within outward, which is one of nature's methods of healing, directs the pus towards the edges of the lids. Our duty is to assist the exit of the pus by separating the lids.

If the lids of both eyes are affected, this method is applied alternately to each eye. If the lids of one eye are affected, this method is a protection to the sound eye, because no pus is permitted to reach beyond the piece of absorbent cotton or sterile gauze used as a wipe. The eye area, that part of the face surrounding the eyelids, is thereby kept dry and clean. The child should lie on its back while suffering from ophthalmia, whether the lids of one or both eyes are affected; because the eyelids are then best under observation and can be given the best attention. Since the nose is a natural barrier between the two eyes, no dressing or shield need be applied to cover the sound eye when this method is used. It is advisable to have these wipes prepared in advance.

This method requires more than one attendant. The attendants should work in relays without interruption during the acute stage of the disease, feeding time and other necessary care of the baby excepted. Do not stop while the child is sleeping. Gentle separation of the eyelids will not interfere with the child's sleep. Allowing accumulation of pus under the eyelids during sleep, which may last for hours at a time, may retard healing or lead to serious sequels. This strenuous treatment lasts usually from 24 to 48 hours, if instituted at the beginning of the ophthalmia. As the inflammation begins to subside, the intervals of cocain solution instillations are lengthened, and the sterile cotton or gauze wipes are used less often. Finally the cocain instillations are discontinued, but the daily cleansing of the eye area is kept up with the infant's eyelids closed.

If, after 48 hours the ophthalmia does not show sufficient improvement, hypodermic treatment may be administered. Some prefer autogenous, others stock, vaccines.

If a nasal discharge is present the nose

should be cleaned frequently to prevent annoyance to the infant, or it will instinctively use its hands and fingers to spread the discharge into its eyes and thus set up or increase an inflammatory process. Warn the attendants of the danger of cleansing the nose and eyelids with the same cloth.

Cleanliness, well directed and thorough, is imperative at all times in this as in other affections. Frequent cleansing of the hands of attendants, or the rubber gloves if worn, should be insisted upon. All objects, such as cotton, gauze, towels and napkins used in the care of the child, should be either sterile or clean. The water of the baby's bath should not be allowed to contaminate the conjunctivas. It is the lack of careful cleanliness to which the child is subjected, whether in the parturient canal or out of it, that is an important factor in the cause of ophthalmia neonatorum.

The newlyborn infant must be kept warm from head to foot, with sufficient warm clothing and covers. Warmth maintains the general health, stimulates activity in the tissues, promotes healing and gives comfort. With a comfortable patient treatment is more effective. During the inflammatory stage, the child should be given warm water to drink in abundance. The water may be sweetened. Water dilutes the poison in the system and helps to eliminate it. When the acute stage of the disease has passed, small feedings at intervals of 3-4 hours are advisable. The room should be warm, well lighted and properly ventilated, fresh air entering at one side only, to avoid draughts. Attention should be given to the infant's bowels. Paregoric, 15 drops, may be given for restlessness.

No cold wet dressings or ice packs should be put on the eyelids in ophthalmia neonatorum. Cold retards healing. Dressings keep the eyelids closed and cause retention of pus, which may be followed by disastrous results. Cold applications to the eyelids may chill the body and predispose the child to pneumonia or other ailments.

Among other preventive measures, the following may merit attention. Each candidate for a marriage license should be required to present a certificate of health, signed by a

physician licensed by the state. The prospective mother should be in the care of a physician as soon as her menses have ceased. As a prenatal measure, daily vaginal douches should be recommended throughout pregnancy. If gonorrhea or some other disease affects the parturient canal it should receive appropriate treatment. The obstetrician should facilitate and stimulate labor, in order to prevent injury and infection of the conjunctivas from prolonged pressure upon the head and eyelids. Boards of Health should work out a plan to help in the prevention and treatment of ophthalmia neonatorum.

Cocain solution, by blanching the mucous membrane and making it anesthetic, increases the resistance of the conjunctivas to bacterial invasion, and keeps the affected parts free from pain. Gentleness, cleanliness, and care in the method outlined, help this remedy to prevent complications. Cocain solution, as herein applied, is the ideal remedy in the prophylaxis and treatment of ophthalmia neonatorum.

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## THE VIENNA CLINICS

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DAVID J. NALITT, M.D.,  
Bayonne, N. J.

In visiting the English medical centers, one is struck with a feeling that we do cleaner and better surgery at home and one rebels against their laboratory methods. But on second thought, realizing that they have great institutions in antiquated buildings and that they work with antiquated apparatus, and seeing how hard pressed they are in their hospitals and laboratories for financial support, one realizes that, in spite of these great handicaps, they do wonders and get fine results.

There are great medical centers in the British Isles, France, Germany and other countries abroad, but none are so well organized as the Vienna Clinics for giving visiting physicians the work they want. That is the consensus of opinion among medical men studying abroad. The Vienna Clinics are not only willing to accommodate them, but to a great extent are looking

forward to the financial support of the visiting doctors.

One receives in the various centers of medicine, particularly the Vienna Clinics, a definite inspiration to get out of his rut. In watching men like Sir Berkeley Moynihan, Robert Jones, Wilhelm Neumann, Von Pirquet, and their assistants, who do the real hard work in their various fields of medicine, one gets so enthused that he wishes he could spend years instead of months in such an environment. The great teacher, Erdheim, showing at the autopsy table the gross and microscopic findings, exposing many times the mistakes that great clinicians make in their diagnoses, makes us pause and think. Then we realize that half the pitfalls in our diagnoses may be avoided, if we but take our time to weigh all symptoms carefully and to consider the physiologic functions and pathologic changes that may take place in the system of the patient before us.

Such great clinicians as Hodgkins, Osler, Mackenzie, Loomis, Janeway, Flint and a host of others owed their success to the fact that they were thinkers with boundless enthusiasm. The more mysterious the condition in the patient confronting them the more thought and study they gave it until they solved the problem. If I have gained nothing more from the time I have spent in the clinics abroad than the will and the enthusiasm for doing increasingly better work, I shall feel that I have been amply rewarded.

In the Vienna Clinics I was intensely interested in all that I undertook. How could one help being enthused to the utmost degree, when one met at every turn hundreds of men from all over the world—University professors, specialists in every branch of medicine, even some undergraduates of Harvard Medical School (sent by their professors, I understood), sitting side by side, imbibing knowledge and comparing notes at the feet of great clinicians and research workers who are in the vanguard of medicine. Many of the student physicians had left extensive practices for a year or more to satisfy their craving to do better work.



One of the men whom all flocked to hear, regardless of what specialty they might be interested in, was the great pathologist, Erdheim. He gave us about 20 autopsies, 3 times a week and I feel that a review of a few of those that I witnessed would be more interesting to a greater number of physicians than any of the other work that I did.

The cases are cited rather briefly as it was not my original intention to present my notes to any medical group.

#### AUTOPSY CASES

Male, 71. Clinical diagnosis was gangrene of the left foot. There was thrombosis in the calcified femoral artery, called Wenkenber's arteriosclerosis. Calcification in this condition usually takes place in the media and usually in the peripheral vessels, never in the aorta. In this case the intima was normal, while in arteriosclerosis of the aorta the intima is mostly affected and the media is normal. In arteriosclerosis the lumen is normal or narrow, while here it was enlarged. Calcified rings break and thrombosis begins. The calcifications look like a trachea in a goose. The theory of hypersecretion of adrenals as the cause of arteriosclerosis is exploded, because it shows toxic, necrotic sclerosis of media and not of intima. This patient did not die of gangrene of the leg. He had a very large carcinoma of the sigmoid, which also involved the bladder, giving no symptoms because the lumen of the bowel was still unobstructed. There was metastasis in the lung apices, which is very unusual. Gall-bladder was calcified completely, oblong, the size of a large walnut, and contained hemorrhagic black mass resembling hemorrhagic feces.

Female, 71. Esophageal diverticulum by traction through a lymph node later breaking down. This is a common occurrence. In this case the anthracotic lymph-node broke down and made an opening between the esophagus and bronchus, causing death by aspiration pneumonia which turned gangrenous. Also had struma cystica ossea. Uterus was prolapsed causing hydronephrosis.

Female, 72. Carcinoma mammae, operation, no return in 6 years; beautiful results, apparently. Autopsy showed metastasis in pleura and lungs scirrhus and shrunk; perivascular lymphatic infiltration with metastasis. Thread like lines radiating in all directions following the lymph channels, but the parenchyma was practically clear. Scirrhus metastasis in liver, very hard and contracted. Indifferent metastasis in proximal end of femur. Spine had 3 kinds of metastasis: osteoblastic, osteoclastic and indifferent. Bone metastasis is very painful. This case disproves the rule as to different types causing different metastatic kinds of carcinoma.

Male, 51. Carcinoma of the pyriform sinus. Sometime a carcinoma in this sinus is the size of a hemp seed but the glandular metastasis is extremely large in extent. Lymphosarcoma always appears bilaterally. The first appearance of any symptoms in this case was hoarseness 3 weeks before death. Thirty-six hours before the end laryngismus and stenosis appeared. Aspiration pneumonia developed causing dyspnea enough to require tracheotomy, which was performed the day before death. Spleen showed a healed fibrous perisplenitis and on section revealed a healed infarct, not a bacterial infection but a mild toxic perisplenitis following embolus, destruction and infarct. A multitude of calculi in one of the kidneys. Stomach showed 2 scars of healed ulcers nearer to cardiac end. Ulcers heal more frequently at the cardiac than at the pyloric opening, therefore more active ulcerations are found near the pylorus.

Male, 53. Clinical diagnosis, bronchial carcinoma, gland involvement of recurrent nerve causing hoarseness, which was correct. Every time bronchial stenosis takes place following metastasis, induration pneumonia develops, repeating the same process half a dozen times in different parts of the chest. The only clinical signs produced are pneumonia patches which do not resolve. Every time there is obstruction of a bronchus by the extension of neoplasm, some bronchiectasis and pneumonia will be elicited clinically. The heart showed exten-

sion of a large metastatic polyp through the pulmonary vein. Metastasis in both suprarenals without any Addison's disease, except that patient was adynamic. Evidently the neoplasm had affinity for adrenals but not for kidneys, liver or spleen, which were normal. Some metastasis in mesentery and ileum. Patient also had brain symptoms the last few days, showing some metastasis in both hemispheres of cerebrum.

Male, 73. From urological department. Clinical diagnosis, hypertrophy of the prostate, hematuria, cystitis, gravis. Question as to whether there was any malignant condition of prostate. Found perivesicular phlegmon from abscess in bladder wall, hemorrhagic cystitis, both kidneys abscessed, and ascending pyelonephritis. Prostate showed scirrhus carcinoma. Bullous and vesicular emphysema and lobar pneumonia. Pure cholesterol stone in gall-bladder.

Female, 61. Diagnosis, hydrothorax. Found spontaneous rupture of aorta. Two weeks before death patient was perfectly well; illness began with sudden pain in lumbar region. Examination of urine showed 2% albumin. There was a question of nephrolithiasis. Functional test of right kidney was negative, the left was positive, and nephrolithiasis or infarct was suspected. The last day aphonia suddenly developed and the diagnosis of aortic aneurysm was made because of pressure on recurrent nerve. Sudden death after walking around the room. Findings: spontaneous rupture of aorta, a dissecting aneurysm, hematoma forming at arch of aorta between the adventitia, intima and media. The adventitia broke through into pleura 2 weeks before death. Kidney showed infarcts of 2 weeks duration and dissecting aneurysm in renal artery and all through the other arteries in the kidneys. Patient lived 2 weeks in that condition of ruptured dissecting aneurysm with hemothorax. Dr. Erdheim cited a case of a boy, 19, who dived in the water and disappeared. He was brought up, had dissecting aneurysm for 4 years and then died. The hematoma was organized all over the mediastinum.

Male, 65. For 6 months patient suffered from stenosis or obstructive constipation. Diagnosis was carcinoma. No carcinoma was found but chronic benign inflammation and stenosis, which dilated the intestines at the cecum. A pin-point opening at the base of an ulcer produced peritonitis and extreme amount of tympanitis from the escape of wind into peritoneal cavity. Ulcer was possibly syphilitic.

Male, 63. Diagnosis carcinoma of intestines, inoperable, which was wrong. Patient admitted to hospital with ileus 5 weeks before. Surgeon made an ileostomy which is very bad because right after eating, food runs out and patient gets weak and cachectic. Found: circumscribed peritonitis, adhesive at cecum, around a hydropic appendix, which had burst open at some time, producing a pseudomyxoma of the peritoneum. That made the operator think he had a case of malignancy in the abdomen. Another occurrence which would cause the same condition is rupture of a cyst of the ovary. In this case the appendix must have been gangrenous a long time before, causing peritonitis, then total absorption and adhesions, but center became cystic.

Male, 55. There was a question whether this was a case of hemoptysis, hematemesis, ulcer or carcinoma. Diagnosis, hemorrhage in intestines, myocarditis. Autopsy showed patient had a syphilitic aortitis which burst in the esophagus, filled the stomach and intestines, thus showing that the thrombus bled slowly for 2 or 3 days. Media of aorta contains the elastic fibers, so that when in syphilis it is affected we get diffuse cylindrical, or spindle shaped aneurysm, and in some cases sacculated forms due to one little plaque disappearing in the media. A sacculated aneurysm is the kind which most frequently perforates in the trachea, bronchi, pleura or pericardium and may cause erosion of any bone. There were 3 sacculated aneurysms in this case, one of which thrombosed, broke open into the esophagus and bled slowly; the patient probably bled for 2 or 3 days before death.

Male, 38. Lymphogranuloma, granulomatosis, Hodgkin's lymphatic anemia. Clin-



ically leukemia with large spleen. Lymph glands enlarged. Microscopically this was not a hyperplasia of lymph cells but a chronic granulation, an infection, granuloma buttons forming. Granulomatosis has been considered as a form of tuberculosis because they were combined in some cases. It has been shown by Frankel and others that there are pure cases of lymphogranuloma with infection of certain bacilli, but we still do not know of any specific germs as the cause. When lymphogranuloma buttons are found in the spleen, the diagnosis is positive. The fever is characteristic in the disease. X-ray treatment gives apparent improvement, but it is only temporary. Granuloma can appear in all tissues, bones, glands, stomach, intestines, etc. In the beginning infiltration, clusters of white cells appear, later leukocytes, eosinophils, fibroblasts and Sternberg's giant cells, not quite so large as tuberculous giant cells. In older infiltrations the specific characteristics are not so certain because they are fibrosed and not typical. In this case the mesentery

and retroperitoneum were loaded with infiltrations. Around aorta in internal inguinal canal they resembled carcinoma metastasis. Gall-bladder resembled a carcinoma and extended into the liver, portal vein showing thrombosis with necrotic infarcts. Spleen was a typical (bauer wurst) peasant Bologna; another name is porphyry spleen. Mediastinal glands a mass of lymphogranuloma. Lungs perfectly free from tuberculosis.

Female, 51. Diagnosis, carcinoma of stomach, inoperable. Patient died 8 days after laparotomy. Cause of death was parotitis phlegmonosa, a condition appearing in cachectics from tuberculosis or in carcinoma patients who do not keep their mouths clean. This case was a carcinoma infiltrans ventriculi and showed very little tendency to ulcerate. Adhesions were present. The stomach was scirrhus and shrunken over the whole posterior wall—condition known as leather bottle stomach. It is to be differentiated from infiltrated stomach.

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## In Memoriam

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GOOD, W. T., of Alloway, Salem County, died suddenly in Philadelphia, April 19, 1927, at the age of 68 years.

Dr. Good was of Scotch extraction and was born at Motherwell, Canada, sixty-eight years ago. He was one of a family of nine, six sons and two daughters. One brother, Dr. Robert Good, is located at Mauch Chunk, Pa.

In his early life Dr. Good taught school in Canada and then became a student of medicine in Jefferson College, Philadelphia, from which he was graduated in 1886. He came to Quinton about a year later and opened an office over the grocery store of the late Sylvanus Sheppard. He became very popular and soon built up an excellent practice.

Miss Dorcas Dixon, daughter of George and Mary Dixon, became his bride in 1891. The wedding took place in the Methodist Church and was one of the largest ever held in Quinton. Doctor Good and his wife were active in church and social affairs for both had hosts of friends and were accomplished musicians.

The doctor lived in Quinton for ten years when he sold his property and moved with his family to Bridgeton. He remained there but a short time and then came to Salem but his stay here was brief for he moved to Alloway and opened an office. It was there that his wife died in 1920. He had been a resident of Alloway for approximately sixteen years.

Dr. Good was classed as a very able physician, very intellectual and with a pleasing personality. He was a member of the Salem County Medical Society and also a member of the Medical and Surgical Staff of the Salem County Memorial Hospital. He had served for several terms as physician at the Salem County Home.

## Special Notice

### ATTENTION

Concerning the Charter, Constitution and By-Laws of the  
Medical Society of New Jersey.

At the last annual convention of the State Medical Society some discussion arose concerning the legal status of Permanent Delegates, the construction of the House of Delegates, and the validity of certain actions taken by the Board of Trustees, so that it became necessary to request the legal adviser of the society to interpret the Charter and the Constitution and By-Laws under which the society is operating. A series of questions submitted to our counsel, Mr. Edward M. Colie, brought forth a response which is published in full in this issue of the Journal (page 303) for the information of all members of the state society.

At a special meeting of the Board of Trustees, held at Trenton, Sunday, May 1, 1927, it was decided to present this matter to the House of Delegates at the opening session, June 9, 1927, immediately after the reading of the minutes of the previous convention, and to present at the same time a tentative draft of a new Constitution and By-Laws which is to be prepared with the aid of the legal adviser so that it will conform with the charter and correct the legal defects of the existing Constitution and By-Laws.

It will be noted particularly that counsel considers the Charter an excellent one, re-

quiring no alteration or amendment, and that he recommends only a change in the Constitution and By-Laws to bring those rules of the organization into conformity with the Charter.

By having a tentative draft of constitutional changes prepared in advance for submission to the House of Delegates, that body will have something definite and concrete for consideration and will be saved much time and labor in starting the process of securing a new and satisfactory set of governing rules. Any other procedure would entail the loss of an additional year of time, because any proposed changes in the Constitution, or substitute therefor, will necessarily lay over for one year before adoption can be considered; if introduced at this year's meeting the changes can be finally acted upon next year, while if not prepared in advance and delay taken until the House could appoint a committee on revision a whole year would be lost.

It is highly important that every member of the society, and especially every Delegate to the Annual Convention, shall read Mr. Colie's opinion and be prepared to take part in the necessary revision of the Constitution and By-Laws.



# JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if,—

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

## OUR ANNUAL CONVENTION

No more important event demands your consideration at the present moment than the coming session of the State Medical Society at Atlantic City in June. If you have not yet made hotel reservations, better do so at once. The Committee on Scientific Work and the Committee on Program and Arrangements have done everything in their power to make this year's meeting an exceptional event. Do your part now, for it is up to you to make the convention a complete success.

The preliminary program is published in this issue of the Journal, a month earlier than usual, in order that you may know well in advance just what to expect and how to prepare for receipt of the greatest benefit from the meeting. A short abstract of each scientific paper is presented so that you may collect your data for use in discussion. Symposiums are to be presented upon two extremely important and interesting topics, and the essayists chosen for the purpose will speak with the voice of authority in their respective realms.

Some innovations are being attempted with a view to making the congress more enjoyable than heretofore, good as those annual events have been. For instance, the Presidential Address will be given at a fixed hour—noon on Friday—and as a distinctive event instead of being mixed up with the social affairs of an evening session. Then, it has been determined to give both evenings over entirely to social entertainment; members at-

tending need this relaxation after a full day of business or science, and guests will not have to submit to the boredom of an admixture of science and pleasure.

Note particularly that provision is made for the organization of a Woman's Auxiliary to the State Medical Society. It seems likely that at least 15 of the 21 county societies will have organized such local auxiliaries before the end of May and these will be amalgamated into a State Auxiliary in June. The women of your family should be interested in this and we believe they will enjoy the social program being especially prepared for them.

Altogether, there are many good reasons why you should participate in this convention, and we urge you to decide at once that you will not permit anything to prevent your attendance this year. Write immediately for reservations.

## CAMPAIGN AGAINST DIPHTHERIA

An important conference, participated in by representatives of the State Medical Society, State Board of Health, State Board of Education, Association of Health Officers and the Antituberculosis League, was held at Trenton, Sunday, April 10, with the object of launching a state-wide campaign for the obliteration of diphtheria from this region. Inaugurated by the officers of this society, steps were taken to bring into effective coöperation all of the organizations or groups of peoples, lay or professional, who might be interested in an effort to stamp out this particular disease. A full

report of that conference will be published in the June issue of this Journal, and every member of the profession is invited to do whatever he may to aid in rendering this work successful.

There are various ways in which physicians can help promote the cause, but one of the most important is that of explaining to patients and friends, whenever opportunity affords, that diphtheria is now a preventable disease, that the procedure of inducing immunity is dangerless, and that complete safeguarding of the community depends in the main upon protective immunization of the young children; not only school children, but, more particularly the children of preschool age, i. e. between the ages of 6 months and 6 years.

The health officer of Irvington, N. J., was recently quoted as saying that "American mothers and fathers think the rites of the Hindus, who offer up their children as a sacrifice to the God of the River Ganges are horrible, yet every year thousands of American children are offered up to the destroying effect of diphtheria because their parents fail to take advantage of preventive measures against this disease". A statement we may well ponder upon. Lets see what we can each do to free our own town.

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## PERIODIC HEALTH EXAMINATIONS

A Chinese proverb says, in effect, that "a picture is worth more than a thousand words". We have long been personally convinced of the truth of this adage but recent experience has furnished us with some striking evidence in confirmation of the belief. We are quite certain that exhibition before the county societies of our moving picture films, showing the technic of a physical health examination, has been productive of greater results than all the talking of the previous two years. Everywhere the showing of this picture has been followed by orders for the examination blanks; which is better evidence of satisfactory presentation of the subject than is to be found in a vote of thanks for the speech and we feel encouraged to proceed now with previously announced plans for the development of other pictures.

Another aspect of this question that has interested us of late is the appearance of purely mercantile "institutes" or "clinics", organized and controlled by laymen, for the double purpose of commercializing periodic health examinations and of exploiting the medical profession. We predicted just such a condition as likely to arise, and have several times warned our professional audiences that unless the medical man takes possession of and develops this field of work properly he may expect the charlatan and the unscrupulous money seeker to exploit the financial possibilities of the proposition and to impose upon the public and the profession. It is not the Life Extension Institute or the reputable Life Insurance Companies that we have to fear. What we have occasion to look out for, is the quack doctor or the keen "business man", who observes and grasps the opportunity to make money by setting up a decorative establishment, advertising extensively to attract a clientele, and imposes upon the public by rendering worthless services, or engages physicians at a pittance to make these examinations.

One of these commercial institutes, located in New York City, has recently been circularizing physicians of this state, presenting the tempting offer of \$3 for each complete physical examination made upon clients secured in their communities and referred to them; nothing being said in the circular about how much the institute charges the client.

Is it possible, we hear you ask, that any physician in good standing will fall for that sort of thing? It is possible; in fact it is actually happening. We do not know why any physician should be willing to work so hard for a small fee transmitted through a third party, when he could by direct dealing with the client secure from 3 to 5 times as large a fee for the same work. However, facts are stubborn things to contend with. We can only advise the thoughtless to be wary of undertaking to make health examinations for any institute, at least until personal investigation proves its backers to be above reproach, and urge upon the profession the desirability of keeping this feature of preventive medicine under the guidance and control of medical practitioners.



## Medical Economics

### THE GRATITUDE OF A NATION

Those of our readers old enough to remember the annual scourge of yellow fever, and who recall the periodic spasm of national alarm lest this dreadful disease should pass the quarantine barriers at our principal seaports, can appreciate the present absence of all such fear and the almost total forgetfulness that yellow fever ever existed. Every year, in the olden days, the national government spent large sums of money combatting this disease, and cities like New Orleans lost an immense number of dollars and a seriously large number of lives through the invasion of this pest. Most of us are familiar with the story of how yellow fever was conquered, and take pride in the part played by our medical confères. We honor and admire Reed, Lazear, Carroll and Agramonte for their scientific labors and their selfsacrificing devotion to the cause of preventive medicine; and we hold in equal esteem that brave band of soldiers who voluntarily submitted themselves as subjects upon which to prove experimentally the theories of these scientists. All glory and honor to every individual who participated in the work and tests that resulted in the obliteration of yellow fever.

But, what is to be said of a nation—a so-called *civilized* nation—that fails so lamentably to recognize in any appreciative sense the heroes who conferred such a boon upon humanity, who saved that year, and are now annually saving, thousands of lives for this country and millions of dollars for its business interests? What a sad commentary on the gratitude of a nation is the following note abstracted from the weekly periodical "Time", March 28, 1927.

"One night in a tent pitched about a mile from Quemados, Cuba, thirsty mosquitoes sang their monotonous whining song; on a cot, Private John R. Kissinger lay awake. It was hot and sticky; he did not slap the stinging pests away. He had volunteered to Dr. Walter Reed, head of the U. S. Yellow Fever Commission, to subject himself to the bites of mosquitoes that had sucked the blood of men ill with the fever; in this way the Commission hoped to find whether the mosquito carried the deadly germ. He made the offer knowing that his chances for life were less than one in 20, if he became infected.

That night was nearly 27 years ago. Last week *scientists* and *doctors* opened a campaign to raise money to help onetime Private Kissinger. Not long ago friends had found him

nearly destitute, broken in body and mind from the illness that followed the yellow fever he caught that night near Quemados. For nearly 20 years, he has lain in a wheel-chair suffering from spinal myelitis. His wife has nursed him and supported him. But the U. S. has not been overgenerous with its rewards to the men who helped stamp out yellow fever. While one year of yellow fever was estimated to have cost the State of Louisiana alone 4,056 lives and \$15,000,000, the total monthly disbursements of the U. S. in 1925 to the widows of Reed, Carroll and Lazear, and to John Kissinger was only \$475 a month; in 1906 it gave only \$146 a month.

For Mr. Kissinger, in particular, his country has done little. When he left the army in 1901, he proudly refused a reward for his sacrifice; in 1907 the Government awarded him a pitiful pension of \$12 a month; in 1922 they increased it to \$100. Now his faithful wife lies seriously ill, too; the pension is not large enough to keep them alive.

Yet Mr. Kissinger has lived to learn that his sacrifices have been worth while even if unrewarded. In 1900, yellow fever was the scourge of the American tropics; last year in the whole of North and South America, *only two cases* of yellow fever were reported.

## Medical Ethics

### MEDICAL AND OTHERWISE

(An article by Morris Fishbein, M.D., Editor Jour. A. M. A., copied from the magazine—Nation's Business, Feb., 1927)

The physician, if he is the graduate of a reputable medical school, has perhaps been told again and again, by preceptors and teachers, that his is a profession of service. No doubt, the examples of sacrifices observed in clinic, dispensary and out-patient departments have impressed this conception upon him even more. With his diploma, he receives an address on high aims and service and a copy of the "Principles of Medical Ethics" of the American Medical Association. Possibly he lays aside the little books to read after the celebrations and examinations associated with this period in his career have ended. Then he embarks on his internship and, following that, enters medical practice. But he is hardly likely to consult the booklet of ethics again unless invited to speak on the subject before some organization, or until some occasion arises in which he believes his rights may have been transgressed. Then he sends for a new copy, only to find in all probability that the

things he thought were there are not really there at all.

#### ETHICS FOR THE PATIENT

The average man believes that medical ethics were developed primarily for the physician, and with but little regard for the interest of the patient. He believes that the physician is compelled either by this system or by some legal requirement to come to every patient every time he is called.

The physician believes frequently that medical ethics demand that other physicians treat him at any time and to any amount without exacting a fee, and not infrequently that physicians give gratuitous service also to all members of his immediate family and the families of his more distant relations.

He is certain that the principles prevent another physician from "stealing" his patients, and he is not infrequently of the opinion that the principles of ethics were formulated primarily for the protection of the rights of the individual physician rather than for the rights of the group.

#### RESULTS MEASURE THE MAN

In other words, the physician is first and foremost a human being with all of the failings of human beings in other businesses and in other professions. He is likely, if he is that kind of a man, to think first of "number one". He may, if he has the instincts of a miser, put receipts above service. He may, if he is naturally quarrelsome and antagonistic, be constantly at outs with his colleagues and his patients. Yet, if he has obtained a reputation for master ability in diagnosis, in surgical technic, or in medical treatment, he may continue to have a tremendous practice and to maintain this practice against constant opposition.

In medicine, as in all other professions and trades, results count. Fortunately, the men who are great in medicine are also likely to be great in heart, great in mind and great in spirit; but there are exceptions, and physicians know of them probably oftener and better than do the public. After all, the greatest prize that a physician can secure is the esteem of his fellow-craftsmen, not the easily procurable flattery of the credulous public.

The public seems to believe there is no way of telling a good physician, an ethical one, or a scientific one from an unethical or an ignorant one. In many instances, public judgment is based on the kind of car he drives, the church he attends, the social position of his wife, his whiskers, or the protuberance of his abdomen. Frequently, a 48-inch waist measure is taken as the equivalent of a 48-caliber

brain. A man may be a good Elk, a first-rate Shriner, an excellent grand sache of the Red Men, own his own home and be considered a remarkable doctor, and still not be able to tell whether a sinking pain in the pit of the abdomen is due to an inflamed gall-bladder or a gastric ulcer.

The principles of ethics now official in the American Medical Association are a gradual evolution of a series worked over and developed through many years. It is significant that the work emphasizes, first of all, the duties of the physician to his patient. These duties include service as an ideal, patience and delicacy as highly desirable qualifications, and full assumption of responsibility once a case has been undertaken. The principles of ethics emphasize that a physician is free to choose whom he will serve, but point out that he should respond to any request for assistance in emergencies or whenever temperate public opinion expects the service. Many a great merchant made his success on the same factors.

The second chapter is concerned with the duties of physicians to each other. The physician is told that he must be an honorable man and a gentleman, that he must conform to a high standard of morals and uphold the dignity of his profession.

#### SHALL THE DOCTOR ADVERTISE?

Then comes the question of advertising. The solicitation of patients is unprofessional. The section dealing with this question is explicit, covering every possibility and leaving little doubt as to interpretation. But when all is said, the conclusion is actually that a man ought to conform to the customs of the community in which he lives. If it has been the custom to publish a business card in the country newspaper, the physician may do so; on the other hand, if this is not the custom, he may not do so.

The principles of ethics protect the individual physician against the commercial group by stating that no group of physicians, organized, as a corporation, may do any type of advertising that is not permitted to the individual. The difference in point of view here emphasized between medical ethics and those of business is clearly apparent.

Medicine has for years depended for its success on the personal relationship between physician and patient. The great leaders know that the maintenance of this personal relationship is essential. Hence, every phase of the principles of ethics is planned to protect the rights of individual physicians against any group of physicians with the commercial ideal.

It has been said that John Wanamaker and Marshall Field owed their successes to the



idea that the customer is always right. In other words, the purchaser must be pleased, and he must be protected not only from the deceits of salesmanship but against his own folly. This, after all, is the type of personal relationship which must exist between the physician and his patient. A pleased patient, as the principles of ethics repeatedly state, is the best type of medical advertisement. Just as the old law of *caveat emptor* no longer prevails in modern business, so also do the principles of medical ethics proclaim "It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of disease; or to employ any methods to gain the attention of the public for the purpose of obtaining patients."

NO SECRET NOSTRUMS USED

The ethical physician will not prescribe or dispense secret medicines or other secret remedial agents. The analogy of this part of the medical code to the best type of modern business is perhaps the statement in the advertising of clothing of the percentage of wool or cotton which makes its content. It is similar to the clear statement on fabricated silks that they are not actually silks.

The principles of ethics were set forth not as a threat but as an inspiration. Just as there are merchants who by their nature rejoice in the shrewd deception of the ignorant customer, just as there are egoists in the control of manufacturing industries who do not hesitate to place their personal wishes above the good of all, so also there are in medicine physicians who feel that their judgment in the matter of prescribing remedies is better than that of the Council on Pharmacy and Chemistry, appointed by the American Medical Association to establish what is sound and reliable in new remedies.

The fault is not in the principles of ethics; it is in the character of the men who have failed to be inspired by the ideals and the high principles of their leaders. One might indeed quote Shakespeare when Cassius is made to say, "The fault, dear Brutus, is not in our stars but in ourselves."

A patient lay seriously ill, his physician gave a sad prognosis and, after giving somewhat explicit directions as to his conduct, asked, "Now, is there anything else that I can get for you?" "Yes", said the patient weakly, "another doctor".

From time to time, the official representatives of American medicine have debated the question of consultation, bearing in mind that the interest of the patient is paramount.

Section one of this portion of the principles does not equivocate. "In serious illness, especially in doubtful or difficult conditions, the physician should request consultations". And it continues, "In every consultation, the benefit to be derived by the patient is of first importance. Time and again physicians argue the question as to consultation with irregular practitioners, or those devoted to the tenets of some sectarian practice or cultist system. The principles of ethics are not specific on this point, but there is a section devoted to the honor of the profession, which says: "A physician should not base his practice on an exclusive dogma or sectarian system, for 'sects are implacable despots; to accept their thralldom is to take away all liberty from one's action and thought.'"

HONEST PRACTITIONERS AND QUACKS

There are many physicians who refuse to recognize cultist practice, even to the extent of giving aid to a patient while the patient is still under the care or control of such a practitioner.

There are others who do not hesitate to come in and give advice to patients who may be under such care.

Above all, the physician must consider the good of the patient.

There are physicians who are careful to inquire of the patient as to whether or not he has seen a previous consultant and as to the opinions of the ones first consulted; there are others who are not too meticulous in determining this point. Indeed, a sagacious physician will know promptly from the information possessed by the patient whether or not he has been informed elsewhere concerning his condition. One is almost prompted to suggest that in these instances the wise physician will bear in mind the motto "*caveat venditor*", just as the merchant must apply the same motto to the type of customer who shops too insistently and whose bills are likely to remain unpaid.

The principles of ethics recognize the fact that the medical diagnosis is usually paid for insufficiently in comparison with the reward of surgical technic. "The patient should be made to realize", say the principles of ethics, "that a proper fee should be paid the family physician for the service he renders in determining the surgical or medical treatment suited to the condition, and in advising concerning those best qualified to render any special service that may be required by the patient."

### WHAT THE DOCTOR OWES SOCIETY

The third phase of the principles of ethics is again a recognition of the duty of the physician to the public. He is asked to remember that he is a citizen and to aid in enforcing laws and in giving advice concerning public health. During an epidemic, he must continue his labors for the alleviation of the suffering, without regard to the risk of his own health or life or to financial return. He is asked to warn the public against the devices practiced and the false pretensions made by charlatans, and he is told finally that these principles do not cover all of the obligations which he may have, but are wholly a guide which will supplement the ordinary conduct of a gentleman and the practice of the Golden Rule. The last sentence reads, "Finally, these principles are primarily for the good of the public, and their enforcement should be conducted in such a manner as shall deserve and receive the endorsement of the community."

Fellowship in the American Medical Association is contingent on the possession of this membership.

The Association maintains a Judicial Council which carefully considers complaints brought against any of the fellows or members for infractions of any of the principles of ethics.

But the number of complaints brought and the number of physicians expelled from fellowship or membership each year is surprisingly small!

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## Esthetics

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### ASK SMITH: HE KNOWS

(Copied from the Saturday Review of Literature, Mar. 19, 1927)

In a democracy like America where everyone feels qualified to speak on anything, there is an appalling amount of talk that means nothing. Conversation in the sense in which it existed in those more leisurely days when travel was difficult and visits were events has almost disappeared from our society. Life has too many facets for any one of them long to hold the attention; discussion glances from one topic to another and rarely prolongs itself into searching analysis. Something of that nervous energy that goes into our business and our sports enters too into our intercourse. We want sparkle, vivacity, "pep". That man is the most admired conversationalist who is the best *raconteur*, the most facile in generalizations, the most liberal in dealing out high-toned information. "Ask Smith; he knows", or words to that effect, says a cur-

rent advertisement enlarging upon the circumstance that the admired Smith has secured his information from a scrapbook. Here in a nutshell is the new American gospel which proclaims not knowledge, but the semblance of knowledge, as desirable. For all that vast umbra and penumbra of meaning and association that enrich isolated facts, and make the data of knowledge pregnant, let us have no concern. Let us get facility, regardless of whether culture goes by the board in the scramble. To be educated means nothing; to appear educated ensures success. If you are glib, you are educated; if you have a few odds and ends of curious information to season your glibness with, your wife can be proud of you, and your employer will triple your salary. Talk of "many things, of shoes—and ships—and sealing-wax—of cabbages—and kings", and your reputation will go abroad as a man of mark.

Where is it leading us, this gorging of the mind with ill-assembled facts, this parading of ignorance masking as culture? Superficiality has always been the bane of American life, and now superficiality is being erected into a cult. Shoddiness is becoming a good and a god. The worst of the matter is that the few are in ill case to counteract the doctrine that is being fed to the many, for it is the very imitation of what they have and the character of which is so completely misunderstood that the many seek.

And literature like conversation is lending itself to the development of superficiality. Every tyro fresh from college who can wield his pen with any fluency feels himself by that grace entitled to expression. Generally he has nothing to say but nevertheless he wants to be saying, showing his ability to handle words with cleverness. An enormous part of the material that fills our newspapers is written by youths who like the man of the advertisement have a scrapbook knowledge of their subject. The public laps it up because it too wants a scrapbook polish. It wants its intellectual palate tickled, and its maw filled without effort. The last thing it wants is to chew the cud of reflection. Feed it a piquant and spicy diet, long enough, and its taste for substantial will grow less and less. What are we going to do about it? What can we do but preach in season and out against the vulgarity, the futility, and the short-sightedness of perverting knowledge from its proper uses, and robbing education of the fruits of labor? The theory that a smattering of education is better than no education is tenable, but the belief that a smattering of education is admirable is fatuous. It still remains true that a little learning is a dangerous thing.



## Communication

### CHARTER, CONSTITUTION AND BY-LAWS

(A letter from Mr. Edward M. Colie, legal adviser to the Medical Society of New Jersey, interpreting the above named documents.)

April 22, 1927.

The Medical Society of New Jersey.

Gentlemen:

The Board of Trustees of your Society has submitted to me for my opinion a series of questions involving a consideration of the Charter of your Society, its Constitution, By-Laws and its practice under the Charter, Constitution and By-Laws. I have been furnished with a copy of the Charter, copies of the Constitution and By-Laws, as the Constitution and By-Laws stand after the amendments that have been made thereto in recent years, the Journal of the Society from 1904 to 1926 inclusive and the Minutes of the meeting of the Board of Trustees from 1904 to 1926 inclusive.

I have examined the decisions of this State and also the statutes of this State relating to corporate societies under which there is created a parent society with power in the parent society to charter subordinate societies. I find no statute creating such societies bearing a close analogy to the statute under which your Society exists. The nearest analogy is found in the statutes relating to fraternal societies and several of the statutes in relation to religious societies.

Who constitute your corporation and what the corporate powers are must be ascertained from the language of the Act creating your Society, hereinafter referred to as the "Charter", when construed by the legal rules applicable to such statutes.

Your existing Charter was approved March 14, 1864, and took effect on the fourth Tuesday of January, 1866. It is found in the Laws of 1864, page 250, and is entitled "An act to reorganize the Medical Society of New Jersey." It has not been amended nor supplemented. It repeals the pre-existing Act entitled "An Act to incorporate medical societies for the purpose of regulating the practice of physic and surgery in this State", passed January 28, 1830, and all supplements thereto, and makes the Act of 1864 the sole statute of this State determining who constitute your corporation and what the corporate powers are. The act is extremely meagre in its provisions. The essential provisions relating to the questions under consideration are section 1 in relation to who constitute the corporation and section 3 in relation to the powers of the corporation. Section 1 is in the following language:

"BE IT ENACTED by the Senate and General Assembly of the State of New Jersey, That the Medical Society of the State of New Jersey, already incorporated by the style and name of 'The Medical Society of New Jersey', shall continue to be a body corporate and politic, in fact and in name, and shall and may have and use a common seal, and alter the same at their pleasure; and that *the said society shall be composed of delegates (not less than three) chosen by and from each of the district or county societies, which now are, or which under the authority of the said society may be hereafter instituted; the officers for the time being, shall be ex officio members of the said society independently of the authority of*

*delegation; and all persons who shall have been or may hereafter be presidents of the society, shall rank as fellows, and be entitled to all the privileges of delegated members."*

I have underlined (italicized, Ed.) the words which determine who constitute your corporation. The language is definite and declares that your Society "shall be composed of delegates (not less than three) chosen by and from each of the district or county societies, which now are, or which under the authority of the said society may be hereafter instituted; the officers for the time being, shall be ex officio members of the said society independently of the authority of delegation; and all persons who shall have been or may hereafter be presidents of the society, shall rank as fellows, and be entitled to all the privileges of delegated members."

Under this provision, the corporation consists of the delegates chosen "*by and from*" the district or county societies, the officers for the time being of the Society and all the persons who have been or are presidents of the Society; the latter under the Charter are styled "fellows".

The fundamental requirement in relation to the delegates who are to be members of the corporation is that they shall be chosen *by and from* the district or county societies. Unless so chosen they are not members of the corporation. As to the officers for the time being, the qualifying words "independently of the authority or delegation" seem to me to be the equivalent of "without the necessity of delegation"; that is, of being elected as delegates by and from the district or county societies. As to the presidents of the society (fellows), the language varies from that relating to the officers and declares they shall be entitled to all the privileges of delegated members, which in my opinion means that they shall have the status of delegated members. The varying phraseology is perplexing, but I think the meaning is clear that the corporation is composed of the delegates elected as above provided, the officers and the fellows.

Under this construction, only those above specified can be or are members of the corporation or have any power or authority to act as such. From the members of the corporation, as above specified, must be selected all the committees which, as agencies of the corporation, are essential or which are considered necessary or appropriate, for the proper functioning of the society. The only valid actions of your Society are those taken by the corporation, composed as above specified, or by committees or agencies made up of members of the corporation as above specified. Insofar as the present Constitution and By-Laws provide for action by the corporation taken by the vote by others than those above specified as members of the corporation, such provisions are invalid. It is within the power of your corporation, as of every other corporation, to have the benefit of an investigation and report on particular matters by referring the same to parties not members of the corporation, but such a course has no effect until the corporation or an authorized committee thereof, by appropriate action, has acted upon the report and recommendation of such a committee made up of those not members of the corporation.

I hope that I have made clear by the above exposition my opinion as to who constitute the members of your corporation.

The powers of the corporation are set forth in Section 3 of the Charter. (Section 2 relates to the

degree or Doctor of Medicine). Section 3 is in the following language:

"And be it enacted, That this society shall have power to prescribe the duties of its officers and members, fix their compensation, assess from time to time an annuity upon the district or county societies in the ratio of their membership respectively, and *adopt such rules and regulations for the due management of the concerns of this and the several district societies as may be deemed necessary*; provided, the same be not contrary to the laws of this state; and may hold any estate, real and personal, the annual income of which shall not exceed one thousand dollars."

I have underlined (italicized, Ed.) the significant words.

Your corporation has power to "adopt such rules and regulations for the due management of the concerns of this and the several district societies as may be deemed necessary". The language could hardly be more general and it grants the right to adopt such rules and regulations as are reasonably appropriate for the due management of the concerns of your corporation and the several district societies, but, of course, these rules and regulations must be rules and regulations adopted by your corporation by appropriate action of those who constitute its membership. As to the power to adopt rules and regulations in relation to your corporation, the only limit is that they shall be such as are reasonably appropriate for the due management of the concerns of your corporation. As to rules and regulations affecting the district societies, you have the same broad power in regard to all matters which affect the relation between your corporation and the several district societies.

I now take up for consideration the specific questions:

(1) Who constitute the members of the Medical Society of New Jersey?

My statements above have fully answered that question. They are the delegates "chosen by and from" the district or county societies; the officers for the time being of your corporation and the "fellows"—persons who have been or shall hereafter be presidents of your corporation.

(2) Whether under this Charter more than one class of delegates can be chosen to represent the county or district societies?

The Charter speaks of "delegates" to be chosen *by and from* the district or county societies. I do not see any reason why there may not be a classification of delegates so chosen, as to the length of the period for which they are to be such delegates; nor do I see any reason why the delegates so chosen may not be made subject to the loss of status as delegates under reasonable rules defined by appropriate action on the part of the body making the choice of delegates, to wit: the district or county societies, or by like action of your Society, under the power given *to adopt rules and regulations for the due management of the concerns of the several district societies as may be deemed necessary*.

The "permanent delegates", referred to in Article IV of the Constitution, section 3, are not legal members of your corporation. They are not chosen *by and from* the district or county society, they are nominated by the district or county societies, but elected by the House of Delegates of your corporation. Section 1, Chapter I, of the By-

Laws entitled "Membership" is invalid so far as it includes the "permanent delegates".

Referring further to Article IV of the Constitution, neither the associate delegates, privileged members or guests are members of your corporation. By the express terms of that section of the Constitution their connection with the society is limited to certain privileges.

(3) What members of the Medical Society of New Jersey have the voting power in our deliberations?

Only those delegates who are chosen *by and from* the district or county societies, the officers of the corporation and the "fellows"—the former and present presidents.

(4) What members of the House of Delegates have the voting power in our deliberations?

The House of Delegates is defined in Article V of the Constitution as follows:

"Section 1. The House of Delegates shall be the legislative body of the Medical Society of New Jersey.

"Section 2. Members of the House of Delegates shall consist of the fellows, elected members of the Board of Trustees, officers of the society, permanent and annual delegates, reporters, councillors and chairmen of the standing committees."

The House of Delegates includes, under the above enumeration, the fellows, the officers of the society and the annual delegates. These, under my view, constitute the corporation and are members of the House of Delegates—with the result that the corporation and the House of Delegates are identical in membership.

I now refer to Section 2 of Article V of the Constitution which specifies as members of the House of Delegates others than those who I have above stated constitute the House of Delegates.

"The elected members of the Board of Trustees" may or may not be legal members of the corporation or of the House of Delegates, if I understand aright the provisions of the Charter and By-Laws relating to them. Whether they are such legal members depends upon their being elected from the annual delegates. Article VI of the Constitution describes them as follows: "and five delegates who shall be elected to the Board from the component societies *at large*, as provided in the By-Laws".

The By-Laws Chapter V, Section 3 provide that: "Five delegates shall be nominated and elected to the Board of Trustees from the component societies *at large*, one from each judicial district."

This language seems to permit the election of these *delegates* by the corporation from the societies *at large*. The language is very vague and unsatisfactory. An examination of the "Official Transactions" indicates that the practice of your Society is to elect these delegates from the "permanent" delegates, one each year, at the time of the election of officers of your Society; they are therefore not members of the corporation nor of the House of Delegates. The "permanent" delegates are not legal members of the corporation nor of the House of Delegates, for the reasons fully given above.

The "reporters". This office is created by Chapter VII of the By-Laws. They are chosen by and from the district or county societies. The By-Laws provide that the reporter shall forfeit his right to a seat in the House of Delegates under certain circumstances. In view of the functions of the "re-



porters", as defined in the By-Laws, I do not think they are delegates within the meaning of the Charter and so are not legal members of the corporation nor of the House of Delegates; they have a "right to a seat in the House of Delegates", which seems to be necessary so that they can perform their duties under the By-Laws, but are not delegates in the sense in which that term is used in the Charter.

The "Councillors" are not legal members of the corporation nor of the House of Delegates under Chapter VIII of the By-Laws, unless they are elected from the membership of the corporation as above defined.

The "Chairman of the standing committees." The president, by Chapter VI, Section 1, of the By-Laws is to "appoint all committees not otherwise provided for", but an examination of Chapter IX of the By-Laws—"standing committees" shows that there are various methods of selection not under the control of the president. If the chairman of a standing committee appointed by the president, or by any other appointing or electing power, in fact was a member of the corporation within the definition I have given, such chairman would be a member of the House of Delegates.

(5) Under the Constitution which we adopted subsequent to the granting of the Charter, besides the delegates provided for in the Charter we allow each county society to *nominate* certain permanent delegates who are afterwards elected by the House of Delegates. They hold office at the pleasure of the House of Delegates and the power of removal rests with the House of Delegates alone. (See Constitution, Article IV, Section 3). Have these delegates a legal right *granted them by the Charter* to take part in the deliberations and to vote in the House of Delegates?

Under the view I have taken above, your so-called "permanent" delegates as now chosen do not have a right granted them by the Charter to take part in the deliberations of the House of Delegates nor to vote therein.

(6) What is your interpretation of the phrase in line 23 of the Charter "independently of the authority of delegation"?

I have fully answered this above by saying that the words are, to my mind, equivalent to "without the necessity of delegation".

The foregoing answers to the six questions submitted to me relating to the present organization and method of conducting your Society have required me to pass upon specific provisions of the Constitution and By-Laws and point out with particularity where they are not in harmony with the Charter. The examination of the Charter, constitution and By-Laws necessary to answer the specific questions referred to me, has made it plain that other provisions of the Constitution and By-Laws are out of harmony with the Charter. In my opinion, the provisions of the Charter are very broad and it needs no amendment. If the membership of your Society is made to accord with the provisions of the Charter, the present difficulties can be overcome by a careful and thorough revision of the Constitution with reference to the Charter and a careful and thorough revision of the By-Laws with reference to both the Charter and the Constitution. I am of the opinion that under your Charter a Constitution and By-Laws can be framed, after careful study and consideration, which will accomplish all the practical purposes sought by your Society.

The fact that your Constitution and By-Laws are not in accord with the Charter does not af-

fect the existence of your Society, but leaves its action, so long as the present situation continues, open to attack by anyone interested or affected by the unauthorized action.

In addition to the foregoing specific questions, I am asked for my opinion as to whether the Board of Trustees acted within its rights in declining, by its resolution, to consider two resolutions adopted by the Component Society of Essex at its meeting on April 8, 1926, and transmitted by the Component Society of Essex to the Board of Trustees.

The first resolution of the Essex County Medical Society was directed to the action of the Welfare Committee in relation to the preparation and endorsement of legislation affecting the Medical Practice Act and called upon the Board of Trustees to fully investigate the preparation, endorsement, amendment and attempted enactment of that bill.

The second resolution of the Essex County Medical Society is in the following language:

"The members of the Essex County Medical Society urge upon the Board of Trustees of the Medical Society of New Jersey the disassociation of the position of Editor of the Journal from that of Executive Secretary and that such funds as may be appropriated for the purpose of the Welfare Committee be placed in the sole jurisdiction of the Welfare Committee and that the publicity program as now conducted be discontinued and a more vigorous policy be formed by the Welfare Committee"

The resolution of the Board of Trustees is in the following language:

"Whereas, under the provisions of our Charter, Constitution and By-Laws, the Component Societies are not given the right or privilege to request the Board of Trustees or the House of Delegates to investigate the action of any officer or committee of the House of Delegates;

Therefore, be it resolved that this Board of Trustees declines to consider either of the resolutions adopted by the Component Society of Essex at its meeting on April 8.

And be it further resolved that a copy of this resolution be mailed to the President and the Secretary of the Component Society of Essex."

Chapter X, Section 6 of the By-Laws, creating the Welfare Committee makes it a committee appointed by the president. It is therefore a committee of the Society as a whole and it can be legally subjected to investigation, criticism or condemnation only by the body whose committee it is. Such is the general rule. But it is to be specially noted that the section providing for the appointment of the Welfare Committee declares that it shall hold necessary meetings "at which each Component Society may make known *its recommendations* through the chairman of its Welfare Committee". This By-Law creating the Welfare Committee expressly defines what the rights of a Component Society are in relation to the Welfare Committee, and that right is limited to making known its *recommendations* by the chairman of its Welfare Committee. It did not give the Component Society of Essex the right to require the Board of Trustees to consider the resolutions in question, and the Board of Trustees was within its right in declining to consider either of them.

Respectfully submitted,

(signed)

Edward M. Colie.

## Special Article

### REGULATION OF PHYSICIANS

#### BY LAW

(Fourth Article.)

The passing winter witnessed legislative assemblies gathered in two-thirds of the states of the union. In nearly every one of these state legislatures a series of "Medical Practice" Bills appeared—mostly efforts to legalize the practice of "cults" of one kind or another. In a few states members of the regular medical profession were endeavoring to remedy defects in existing acts governing practice licensure, or to secure entirely new laws for that purpose; the recently proposed "basic science" law was under consideration in several states. We have not sufficient accurate information at hand yet to present a complete report, but notice may be taken of several interesting developments.

You are aware of the fact that 2 states—Wisconsin and Connecticut—have been operating under a basic science law for a year or more. At the recent session of its legislature, the state of Washington enacted a similar law, which is referred to as follows by Northwest Medicine (March, page 167):

The Basic Science Bill, promoted before the Washington legislature by the Public Health League, has passed both Senate and House and has been signed by Governor Hartley. At the last session he vetoed a similar Bill on the ground that the examining board was to be appointed only from the faculty of the State University. The present Bill provides for a board composed of members both from this institution and the State College at Pullman.

This law, similar to that existing in some other states, provides that hereafter everyone applying for license to treat the sick in the state of Washington, whether doctors of medicine or representatives of any other style of practice, shall first pass an examination in anatomy, physiology, chemistry, pathology and hygiene before an examining board from the faculties of the above mentioned institutions. Since this board will not include physicians or other practitioners in its personnel, and papers presented before it will be designated only by numbers, no charge of partiality can be brought against the examiners. Every candidate, therefore, will be judged strictly according to his familiarity with these subjects in which he is examined. The curricula of all educational institutions, which train men and women for the treatment of the ills of mankind, provide for teaching these fundamental branches.

Therefore, every one engaged in the healing art should be prepared to demonstrate his knowledge of these scientific departments, on which are based subsequent lines of study.

In the state of Kansas effort was made to secure adoption of a similar basic science act, but without success. Commenting on their experiences, the editor of the Kansas State Society Journal says:

One who expects to accomplish very much in the way of medical legislation in a Kansas legislature is almost sure to be disappointed. Those who have been experimenting in this line of endeavor for the past forty years have learned to accept with good grace the favors received and thank their lucky stars if no adverse legislation is put over.

Any bill that carries the label of the medical profession, or one that has even suspicious earmarks, goes promptly to rest in the committee mortuary. The mortality rate on bills introduced by doctors is about 99.9 per cent.

The Basic Science Act got just as far as our bills usually get. It was not a simple matter to find some one willing to introduce it. Senator Morgan, a member of the Society and the only physician in the Senate, was prevailed upon to introduce it. And, as he predicted, it was promptly killed in the committee.

The Bill was introduced in the House by Rep. Parkhurst (by request) and, although it survived for a short time, was just as thoroughly killed by the committee of the House.

It was hardly reasonable to expect that our Basic Science Act would be passed at this time, but the legislators, or some of them, will have two years to think it over, the physicians in the state will have two years in which to talk with them or their successors about it; our Bureau of Public Relations will have two years in which to convince the public that a provision of that kind is for their protection; and at the next session of the legislature, the medical profession can sit in the gallery and watch the representatives of the people scramble to get to the front of the line for its support.

Turning to the other aspect of medical legislation—the continuous efforts of charlatans to procure special laws for their own benefit—we find that certain bills were introduced this year into nearly every State Assembly that was in session; this is notably true of the "Naturopathy" and "Cosmetologist" Bills, though the osteopaths seem also to have made a concerted movement to extend their "limited" license privileges into permission to practice medicine and surgery in the fullest sense, and, the chiropractors worked wherever possible to secure a separate examining board. While we, in New Jersey, were able to defeat all such measures this year, some of our neigh-



bors had narrow escapes; in New York, despite the enactment by last year's Assembly of a broad general medical practice act, two special Bills were passed this year by both branches and failed of becoming laws only by virtue of Governor Smith's veto. One of these Bills would have converted osteopaths into surgeons, and the other would have permitted optometrists to assume the title of "Doctor". The people of New York should be thankful that they have such a wise governor.

In Ohio, a similar osteopathic movement was scratched in committee by the narrow margin of 1 vote (8 to 7 against reporting it) and a motion to suspend the rules and consider the direct action upon the measure was killed by vote of 56 to 46.

In so far as we are informed at present, neither the cosmetology nor the naturopathy boards have secured recognition in any state this year, but both groups will bear further watching. We described both bills in our March issue (pages 177-178). The Editor of the Journal of Oklahoma State Medical Association, discussing "Naturopathy, Another Salvation Offered Mankind", dissects one of these measures in an interesting way:

A short time ago, when asked for an opinion as to suggested changes in the law governing a certain so-called medical cult in Oklahoma, which formerly rejected any affiliation with the regular medical profession, but has lately seen the error of its ways and now seeks joint action, we voiced the opinion that such mesalliance was useless and impossible and that the only solution protective to the people of Oklahoma was that offered by the broad principle that every person proposing to practice should be required to show evidence of his fitness in the fundamentals. This opinion is born of the fact that the writer has personally observed probably a dozen different cults of so-called healing demand separate legislation, separate boards and separate recognition for their disciples, then, as the years passed, and their shortcomings found them out, they have been observed to wholly disappear or become so small numerically that it was even difficult to find a member in the entire State to represent them as a member of the Board they had so arrogantly sought to establish a short time before. Personal observation strongly inclines to the idea that the number of osteopaths in Oklahoma has sharply declined; certainly in the eastern section of the state they have decreased. Where formerly chiropractors cluttered up every dusty crossroads, it will be found that they have largely returned to the stable, kitchen or farm from whence they sprung. A quarter of a century ago every hamlet contained one or more "magnetic healers". Today they are the "snows

of yesteryear". It is doubtful if a single member of this cult is to be found in all the broad confines of the state; they, too, have returned to the parent stump, or have evolved, or degenerated, as the case may be into chiropractors and birds of similar ilk.

In replying to our correspondent as to the proposed changes, we are of the opinion that these were like the mythical dragons teeth. Uproot one and it returns multiplied. Scarcely would the ink have dried before still another cult would be knocking at the legislative door demanding more farcical legislation. The strange part about all this is that we seem not to profit by experience nor to our memory as the past slowly revolves in repetition before us. Now comes the naturopath, in the identical rut of his predecessors. They to wish, and have had introduced a Bill which has reached that stage in legislation known as a report of "Do pass" in the House. The definition of Naturopathy is not to be found in a late edition of Webster's International Dictionary. However, that does not deter the scientific originators and supporters of this latest piece of legislative foolishness from offering this as "The science and art of prophylactic and therapeutic methods which enables the naturopathic doctor to direct, advise, prescribe, or apply food, plain, spray, or mineral baths, heat, light, herbs, exercise, electricity, radio-vibration, minor surgery, spinal treatment and the correction of physical lesions by means of mechanical methods, to assist nature in the restoration of health and vigor of mind and body. Naturopathy in this Act shall also embrace obstetrics to be practiced by so many as show competent qualifications."

Now, we submit, if there is much left for the ambitious in other fields of endeavor, we fail to discern it. Just note the far flung abilities embraced—prophylaxis, therapeutics, dietetics, hydro and greasotherapy, in all their ramifications, thermotherapy, herbalism, athletics, electricity, massage, surgery, "spinal treatment" (this sounds suspiciously like some old offenders of the past), mechanics, and, finally, a means of "assisting nature". As an afterthought, one may practice obstetrics, if they are fitted to perform that simple service.

Disguised under any name or title, this silly proposition is merely another effort on the part of the misfits and incompetents to have themselves legislated into the privileges and prestige of worthy and earnest students and practitioners of medicine.

From all of which it may be inferred that we are not alone in this fight to safeguard the public from destructive and dangerous medical legislation, and may note that our problems, our legislative body, and our people do not differ materially from those of other sections of the United States.

Our brothers across the Delaware River failed to secure passage of the proposed "one board" Bill, which may not prove a loss sufficiently serious to weep about, as many members of the profession felt that it was far from being an ideal piece of legislation.

(To be continued.)

## Case Reports

### A CASE OF PINEAL TUMOR

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H. L. first presented himself to me about 2 months ago complaining of severe headaches. He had taken the usual remedies without avail. Careful physical examination failed to disclose any abnormality, nor was there any evidence of focal infection. These headaches were making him nervous, although he was a big robust man, 32 years of age, with a ruddy complexion and unusually intellectual; he was a teacher of English in High School and had worked himself up to the head of his department. Sometimes these headaches would be accompanied by biliousness and of late vomiting had become a prominent symptom.

He was referred to an ophthalmologist, who made minor changes in his glasses, but reported negative eye-grounds. The patient stated that he had severe sweats, which had such an offensive odor that the wife could not occupy the same room. This led us to believe that there was a toxic basis for his trouble. After another week of no relief, he was sent to a second ophthalmologist, who also reported negative eye-grounds.

I then referred him to Dr. William C. Wescott for x-ray examination of his skull. During the course of this examination, I had him return to both ophthalmologists for reexamination and at this time they reported beginning cupping of the left disc. His headaches were becoming more severe and, in addition, he now complained of diplopia. His Wassermann examination was negative; blood and urine showed no abnormalities. There were but two findings in my examination at this time; one a slight left facial weakness and a slight bilateral sixth nerve weakness; possibly a little more on the left.

Dr. Wescott reported as follows:

*Sinuses:* The right frontal sinus is rather small; shows no evidence of infection. The left is rudimentary, clear. Maxillary antrums symmetrical; large. The right shows a very general increase of density when compared with the left. No osteitis. Sphenoids are large, thin walled and clear. Nothing seen in the ethmoids. The nose has a slight deviation of septum to the right, with hypertrophied turbinates.

*Optic Canals:* Both are oval, and as projected on the film the left measures in the long diameter 5 mm. maximum, short diameter 4.5 mm.; slightly irregular in contour but no evidence of thickening of the wall. The right 6 mm., long and 4 mm. short diameter. No evidence of thickening of the wall.

*Skull as a Whole:* The skull is enlarged, base wide and occiput deep. The vault is thick, the parietes thin. The sagittal and coronal sutures are closed. Stellate veins and deep pacchionian impressions are seen on both sides with some convolutional marking, most evident in the anterior fossa. There is a calcified plaque in the falx which stereoscopes below the bregma and also some soft calcifications extending down from the vault in the midline over each hemisphere. The pineal is calcified.

The anterior fossa is rather deep, dropping down with a saucer-like depression, lowest point of the floor in the midline registering about opposite the middle of the orbit.

The coronal sutures, both sides, show a rather wide irregular thinning of the bone on each side

of the suture line; deepest near the bregma; appearing to be most marked on the right side.

The body of the sphenoid is completely pneumatic, resulting in a very thin-walled sinus. The sella seems to be wide in the lateral direction and owing to the large sphenoidal sinus has a very thin floor, which shows no erosion. The anterior clinoids are large and pneumatic; the posterior seen with difficulty but normal in form, with very thin cortex.

The pituitary fossa is roughly hemispherical; right and left edges elevated and centers depressed; not noticeably enlarged.

Just posterior to and slightly below the posterior clinoids, there are a few linear calcium deposits in the midline, extending down parallel with the body of the sphenoid and a little to the right of the midline, registering over the tip of the os petrosum; there are some more soft linear deposits extending in a curved line, backward.

### DISCUSSION

This patient has a history of convulsions in childhood and a family history of migraine, with no history of cerebral disturbance until one month ago when his vertebral symptoms followed a presumable attack of influenza. He gives a history of severe headache, vomiting not projectile, and distress behind the eyes, relieved by ice-bag over the supciliary ridge; the only localizing symptoms at first, a disturbance in the oculomotor, followed later by indications of increased intracranial pressure (beginning choked disc). All of the above directly following an influenzal attack of short duration.

There are 3 findings of diagnostic value in the radiographic study of the skull.

The stellate veins, deep pacchionian impressions, and convolutional marking are evidence of increased intracranial tension of some duration, but they are sometimes seen in individuals without symptoms of intracranial lesion. They could be produced by meningioma in the region mentioned below or collateral hydrocephalus from some obstruction in the base.

The changes along the coronal sutures resemble to some extent those seen in meningioma of the vault, but against this theory is the fact that they are bilateral and are seen in a minor degree in the occipital region, hence may be part of the general pressure effect.

The most significant change from normal is the linear calcium deposits seen posterior to the sphenoid. These, in my opinion, represent pathology and have the most localizing value. They are not characteristic in type or location of craniopharyngeal pouch tumor, as described by Sosman, nor do they suggest to me aneurysm of the basilar artery or its branches.

Aside from suprasellar cyst or pituitary adenoma, meningioma is the only other common tumor in this situation. The shape and size of the sella turcica does not suggest pituitary adenoma and the situation is unusual for suprasellar cyst; furthermore, I am unable to find any definite evidence of pressure atrophy at the tips of the pyramids except that the impression of the trigeminal nerve seems to be slightly deeper in the right pyramid than in the left, but this might be produced by a slight difference in the angle of projection of the os petrosum and there is no history of facial neuralgia. I can see no enlargement of the internal auditory meatus on either side, but meningiomas arising from about the sella or from the sinuses of the posterior fossa are least likely to give any indications of their presence.

Among the possibilities also to be considered are calcifications in an old basal meningitis.



The patient was referred to Dr. Walter E. Dandy at Johns Hopkins Hospital, who at once made an air injection and whose notes are as follows:

"We were under some difficulty in making our interpretation of the ventriculograms because in the first set in which the right ventricle was filled the third ventricle did not show air. The second set was made when both ventricles were filled with air and these showed a third ventricle. It seemed to be triangular in front according to its usual shape, and behind it seemed straight up and down. The aqueduct of Sylvius could be seen for a distance of probably an inch, but doubtless some of this was third ventricle and fourth ventricle. Of this we could not be sure. It was evident that our tumor was situated about the region of the aqueduct, but because of the depression of the aqueduct shadow and its downward curve, we felt the chance of a cerebellar tumor which had grown forward to this point probably greater than a primary tumor in that region; and besides, the neurologic findings were a left facial weakness, and I thought, a bilateral sixth—the left probably a trifle more than the right.

The air was released before anesthetic was begun and twice during operation the cerebellum was opened. It was under no great pressure but the cisterna was evacuated of a great deal of fluid before the dura was widely opened; this to prevent any possible herniation. The cisterna was about normal size and there was some protrusion of both cerebellar tonsils in the foramen Magendie; it was not a marked foraminal herniation. The cerebellar lobes looked exactly alike. There was no thinning or paleness anywhere and in the midline there was no distortion of one lobe pushing to the other side. We followed up the entire foramen of Magendie, which was patent, and passed upward to the aqueduct of Sylvius. This was closed and it could be seen that there was a lesion from above pressing down the roof. There was nothing more to accomplish from this approach. At a later time, if he survives, a pineal approach will be made."

Two days later Dr. Dandy removed a pineal tumor, which weighed 21.8 grams. His operative notes are as follows:

"In the cerebellar position a craniotomy was made in the left occipital region. Left side was used because of the little left facial weakness, and it was felt that if the tumor did project to one side it would more probably be on the side which showed evidence. The cerebellar incision on the left side was used as the posterior limb of the bone flap and the perforator opening for the ventricular puncture was used as one of the openings for the flap. A small bone flap was turned down. It was made so as to approach the midline, the second incision going within about 1 in. of the midline. After the bone flap had been turned down bone was rongeuired to the midline. Dura was reflected mesially. There were 3 large veins converging into the longitudinal sinus at the anterior margin of the flap. These were left alone with a little pack of cotton over them. They were torn slightly at the beginning of the operation in freeing them from the dura but this was rapidly controlled with pack. When the dura was turned down a ventricular puncture was made and all the fluid possible was milked out of the ventricle. There was surprisingly little fluid obtained. Another puncture was made in the vestibule of the ventricle. A little fluid obtained but still not enough to give us adequate exposure. We worked down easily in the corpus callosum. There were no vessels crossing which had to be ligated. The vein of Galen was easily brought into view. The inferior longitudinal sinus was a tremendous thing.

Instead of being a small vein, which sometimes can be cut without ligation, it was as large as a lead pencil. At first we were led astray by an appearance under the tentorium on the right side and this caused us to divide what was thought to be the falx but which was really found later to be the tentorium. It was soon seen that this was a small stain in the subarachnoid space and giving the superficial appearance of a tumor. We then proceeded through the corpus callosum, splitting it for probably a distance of 2 in. The left lateral ventricle was purposely opened as soon as the tentorium was split in order to obtain more room, but there was almost no fluid obtainable. The ventricle was explored and no sign of tumor could be seen. The choroid plexus was picked up but there was no tumor beneath it and it was freely movable in the ventricle. We then proceeded into the subcorpus callosum region and quickly the tumor was exposed.

The tumor was well rounded, not infiltrating anywhere, and gave hopes of being a type like we have seen in former cases. The left vein of Galen was ligated; it passed over the surface of the tumor and was firmly attached to it; torn during the dissection and after an initial pack it was ligated with a silver clip. The amount of room available was not adequate for a good dissection and, consequently, we were always handicapped. It was impossible to get around the undersurface of the tumor though both sides and its posterior and anterior surfaces were readily liberated of contiguous brain tissue and without sign of infiltration. The capsule of the tumor was not strong enough to hold when picked up and pulled upon so that it was impossible to free the tumor in this way. There seemed no other way except to shell it out with the finger and my finger would just touch the top of the tumor. We had in mind resecting the occipital lobe but being on the left side this would surely produce an alexia. We felt that the only feasible plan was to separate the hemisphere a little further from the falx, and this we did by ligating one of the big veins entering the longitudinal sinus. This gave us a great deal more room but the finger still would not reach far enough to dissect it without dislocating the brain enough to give it injury by pressing against the sides of the bone defect. However, there seemed no other way to accomplish this removal except by the finger dissection and it was felt better to rapidly shell it out, producing the minimum amount of injury. The posterior part of the tumor was caught with the bared index finger and the tumor removed. Tumor shelled easily except that it was fixed at its lowermost part. It was not adherent nor infiltrating here but merely fixed a little more snugly than elsewhere. It was felt that there was no damage done to the brain stem but the left hemisphere was quite considerably lacerated; so much so that there were hematomas and it was felt better to remove the outer surface of the cortex in order to close the wound and allow for swelling of the brain.

The area removed was toward the midline and it is not believed the visual or speech center was included. It was not felt that any injury went far enough forward to produce permanent injury to the motor tract. It was a desperate situation because of the depth of the tumor and the inadequate amount of room which could be obtained. There was very little bleeding when the tumor was shelled out and after a short packing, the pack was removed leaving it perfectly dry. The bone flap was left out of place and the edges of the bone rounded with rongeurs. The brain would swell in this region after operation and perforator openings were made anteriorly in order to be able to tap at

will that part affected by the postoperative edema.

Patient's condition was none too good at the beginning; his temperature was 102° and his pulse 130, respirations 26. We had to perform the operation as quickly as possible because the aqueduct was entirely closed and there was no way of giving him relief except by repeated ventricular punctures and these would finally lose their effect. In retrospect, it has opened a question whether one would be justified in assuming that this was a primary tumor in the region of the pineal rather than a tumor in the cerebellum which had grown forward. I think we probably should have been more definite as the tip of the aqueduct was so clear, but all tumors in this region had produced more changes in the third ventricle. We were unable to be sure that there was any change in this third ventricle. One point worthy of note is that there was quite a considerable shadow in the pineal region when shown in the air background. It was a faint shadow about as large as the end of a lead pencil. This could not be seen in the normal plates.

It is the first example of a dipping of the aqueduct which we have seen and it shows a way to differentiate between cerebellar and pineal tumors. It is the only tumor of the pineal which we have had which showed just a little facial weakness and tiny bilateral sixth, with no retropulsion and no ptosis.

The tumor weighed 21.8 grams. It is the most hopeless outlook for an enucleable tumor which one can have. This clinic has been able to remove and cure but 2 of probably 10 pineal tumors. There was absolutely no way of giving palliative treatment for the aqueduct was tightly blocked.

### THREE LESSONS FROM THE MEDICAL DEPARTMENT OF ATLANTIC CITY HOSPITAL

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#### DEHYDRATION, ANALYSIS OF A CASE

Life depends on several phenomena which the healthy body enjoys fully: Assimilation, respiration, activity associated with the discharge of energy, growth and reproduction. All these have one feature in common, namely, adaptation. Herbert Spencer really defined "Adaptation" when he defined life as "the continuous adjustment of internal relations to external relations". Physiologists teach that a living organism is a highly unstable system which increases itself continuously under the average of conditions to which it is subject, but undergoes disintegration if there is experienced any departure from this average. Temperature, food and oxygen are most necessary if life is to continue in one's body. Water, as well, is necessary to life. Water does not supply energy but takes part in changes which determine the transformation of matter and energy in the organism.

In the following case, No. 4985, the cells of the lining of this patient's gastro-intestinal tract had probably lost their power of adaptation, due to change in environment, the result of her disease and operation exposure, and could not readjust themselves, so that, no matter that she was given water to drink, or water by bowel, her cells could not absorb this water. However, water put under her skin evidently came into contact with cells not yet affected, for she rapidly improved, apparently as a result of the procedure and this procedure only. I remember a few years ago, on this service, a cardiorenal patient who became dehy-

drated and lay several days unconscious and with a skeleton appearance, who after normal salt, intravenously and by hypodermoclysis, was discharged in two weeks able to walk with comfort.

The present case (Hosp. No. 4985) is reported in essential details:

F. B. S., 28 yr. old, admitted Feb. 1, 1926, to service of Dr. Walt P. Conaway. Laparotomy Nov. 3, 1926; D and C; left salpingo-oophorectomy; dilation of sphincter. Diagnosis: Chronic endometritis; left salpingitis; left cystic ovary; stricture of rectum.

After operation, the temperature registered 101.8° F., pulse 108, respiration 24. These curves varied during the next 12 days as follows: T. from normal to 101.8° F.; P. from 80 to 110; R. 18 to 24. Excretion as to quantity of urine satisfactory, but necessary to catheterize on the ninth day when 50 oz. urine were removed. This was repeated on other days. On the twelfth day after operation the T. reached 103° F.; pulse 128; respiration 24.

Patient was then transferred to the medical service for supervision. Nothing in the foregoing chart records indicate the patient's reactions. Her body reaction to external world was pleasing after operation for a few days, when there began a lessening in these reactions until on Nov. 13, when the condition was just that she was growing weak and failing. There is nothing in laboratory findings or in physical examination to explain conditions existing. Blood showed mild secondary anemia with 7900 W.B.C. on admission, 13,750 on Nov. 13 and back to 9700 on Nov. 15.

Urine on admission, 5-6 W.B.C. per field and otherwise negative. On Nov. 15, albumin 500 mgm. per 100 c.c., and a large amount of white cells. We did not consider these findings the cause of the low level of vitality and what happened later confirms this opinion. The blood Wassermann was negative. Consideration of her general condition, physical findings and survey of laboratory reports, convinced us that this patient, a thin but not emaciated woman, who was conscious but not active, drank when fluid was given to her, made no complaints because she had no cause, remained pretty much in one position because she had not the strength to do otherwise, and for the same reason was catheterized and given enemas, was suffering from dehydration due to inability to assimilate water by mouth or Murphy drip. Nor did we find any reason to diagnose her condition as true acidosis or alkalosis.

The patient was given 500 c.c. of normal saline, by hypodermoclysis on Nov. 17. The following day she showed more interest in life, and was given 250 c.c. normal saline by the same method, and thereafter daily, for a few days, normal saline by the Murphy drip. Four days later, we gave her a back rest, five days later had her up in a chair, and discharged her on Nov. 28 in good condition, able to walk and help herself.

#### PARKINSON SYNDROME FOLLOWING AN ATTACK OF LETHARGIC ENCEPHALITIS

This patient was admitted 3 times, from her home in the country back of Atlantic City, between Nov. 1 and Dec. 31, 1926. Following admission on Nov. 2, she was discharged Nov. 6, after general examination, and cystoscopic and x-ray studies by the G. U. Department, as a case of cystitis and stricture of urethra, with a question of cerebrospinal lues. The same diagnosis stands upon her second visit Nov. 17 to Nov. 25. Her third and last visit began Dec. 5 and on Dec. 16 she was discharged as a case of paralysis agitans or parkinsonian syndrome following encephalitis lethargica of many months preceding.

We did not know at any time during our treat-



ment of this case that she had ever had sleeping sickness and, therefore, did not have a history of this disease in her record when the diagnosis was made, nor were we positive about the diagnosis. For example, I wrote progress note to the effect that it may be paralysis agitans, but is more likely a cerebral neoplasm. Dr. R. Bew, our medical director, when I called him in consultation, directed the intern to write the following into progress notes, dated Dec. 16: "Post influenzal syndrome of an atypical parkinsonian type". There is also a possibility of a diffuse glioma which, however, he does not consider very likely. "Suggests rest, prolonged and active and continual methods of elimination, keeping the intestinal tract clear".

Dr. Bew, after patient left our hospital, obtained the history of an attack of encephalitis from a physician who had attended her in Ocean City.

The important laboratory reports of this case are: Complete blood count: R.B.C. 4,800,000; W.B.C. 9600; Hem. 75%; C.I.O. 78; diff: 100 cells show, P. 68; S.L. 23; L.L. 7; E. 2. Blood Wassermann, negative.

Catheterized ureteral urine specimens showed small numbers of *Staphylococcus aureus* from both sides; 1-50 W.B.C. per field; 20-30 reds per fld.

X-Ray: "These films were made after the insertion of opaque catheters. The right kidney is of normal size and shape and in its normal position, no evidence of stone formation is seen." (Dr. Kaighn).

Second complete blood count was normal.

G. U. Department reports diagnosis of genitourinary tract as:

(1) Trigonitis; (2) low grade pyelitis; (3) marked relaxation of the bladder sphincter (Dr. De T. Shivers). The intern has written on progress notes—"G. U. Exam.—stricture of urethra."

X-ray: "Unable to demonstrate a mass in the brain, and there is no evidence of increased intracranial pressure. The sella turcica is small in size." (Dr. Kaighn).

Spinal fluid: Cell count 140. Globulin not increased. Sugar present. Colloidal gold solution unsatisfactory. Wassermann negative.

Eyes: "React very slowly to both light and convergence. There is no pathology in eye-grounds, both discs are clear cut. The left had a slightly larger depression (physiologic) than right." (Dr. Harley).

The following are essentials of physical examination as recorded by our resident: L. F. 39 yr. old, housewife, sent to hospital by Dr. Friedland, of Dennisville.

**Chief complaint:** Inability to void. Pain at before and after urination. Frequency and urgency of urination, and sudden stoppage of urine.

**Analysis:** This began one year ago and patient was in Atlantic City Hospital for that attack. Since then she has been in bed at home for several weeks during 3 attacks. None of her treatments has apparently been of any benefit to her.

**Personal history:** Past health very poor; no bad habits; always lived in U. S. A.

**Diseases of childhood:** Measles, whooping cough, mumps and chicken pox. Later: Influenza, pyelitis. No injuries. Operations: Trachelectomy and appendectomy.

**Physical examination:** Mentally depressed; head negative; eyes starey; pupils moderately dilated, react sluggishly. Chest negative; abdomen negative. Romberg sign, positive. Limbs weak, shooting pains in legs and hips. Coördination good. No atrophies. No palsies, monoplegia or paraplegia. No spasms. Tremor of tongue and hands. Ankle clonus positive. Babinsky positive. No areas of hyperesthesia. History of multiple miscarriages.

**Impression:** (1) Cystitis. (2) Neurosyphilis, despite negative laboratory reports. The following note, many days later, is made by another resident physician: "Patient's third admission to hospital. Telephone conversation with Dr. Friedman in regard to patient, is to the effect that she has been getting headaches progressively more severe. There has been no history of vomiting. She has been in alternate state of mental confusion and motor restlessness. There was apparently marked coördination of motor and sensory activity."

Another notation reads: Patient's condition is not good. Though not unconscious, appears stuporous and somewhat confused. Complains of inability to void. Headache severe and associated with photophobia. Head rolling from side to side and eyes also wander. No localized or generalized muscular twitchings. Extremities are extremely cold. Knee jerks are increased, more marked on the right side. Ankle clonus and Babinsky negative. There is impairment of sensation about the plantar surfaces; pressure exerted by the thumb nail is interpreted as being a feeling of pins and needles.

Notes made the following day: Gives definite history of projectile vomiting, especially at time she is seized with her violent headache. Not mentally as dull as on admission. She states that this attack began with a very violent headache, which started over her left frontoparietal region and spread through the rest of her head. This occurred while she was at breakfast. When she tried to get up she was very dizzy and confused, started to go backward and fell. Gives history of difficulty in walking, pains in leg, sharp and shooting at times.

The foregoing paradoxes have been confirmed. The various symptoms have been found present and found absent. Chameleon in character, is the onset of paralysis agitans. Further comment is not necessary. There is a lesson, perhaps many, to be learned from reviewing this case.

**POSITIVE WIDAL IN THE ABSENCE OF TYPHOID FEVER**  
Three cases herewith reported were sent to hospital as typhoid fever, with positive Widal's.

Case No. 5064, W. J., white child, aged 5 yr., admitted from Absecon, N. J., with a temperature of 102.8° F., pulse of 130 and respirations 36. Main points of history are sudden onset, pain about navel, and headache. One case of typhoid in neighborhood and exposure to case during its convalescence. Important points in physical finding are impaired resources over right chest, and slightly diminished motion. Slight enlargement of the spleen.

Laboratory findings are W.B.C. 13,100; Widal positive for 1-80. Blood, stool and urine culture for *B. typhosus*, negative.

**Diagnosis:** Pleural effusion. X-ray examination confirmed this diagnosis and we removed clear straw colored fluid. Patient was discharged on the twelfth day.

Case No. 5403, J. H., male, 23 yr. old, admitted with temperature 102.8° F., pulse 110,, respiration 38.

Main points of history: Pain in abdomen. Felt badly for 2 weeks and had a mild cold. One week before admission was attacked by sudden pain, because of which he was forced to his bed. The important physical finding is a moderately tender and slightly rigid upper abdominal quadrant. Spleen not enlarged.

Laboratory findings: Positive Widal from State Lab. to family physician. Positive in our own laboratory in 1-320. W.B.C. 7300. Blood, stool and urine cultures for *B. typhosus*, negative.

X-ray for gall-stones negative.

Treatment by diet, colonic irrigations and one

dose of pulv. glycyrrhiza compound. Discharged on eighth day with a diagnosis of subacute cholecystitis.

Case No. 5763. A. L., male, aged 19. Admitted after a few days of high fever at home. Temperature 102°. Pulse 72. Respiration 20.

Important points in history are that he felt badly for 2 weeks, when he was attacked by fever and chills. These repeated themselves irregularly, and fever never abated. He is considered a cured case of recent lues, not long since having received a series, totalling about 20 injections of neo-arsphenamin, and having a negative Wassermann now.

Physical examination does not reveal any enlargement of spleen or any signs of importance. A healed scar is present on penis.

Laboratory results are as follows: Widal positive at home, and in our laboratory positive in 1-320.

Complete blood count: 75% Hgb.; 4,930,000 R. B. C.; 21,950 W.B.C.; 0.7 C.I.; 71% P.; 21 L.L.; 7 L.L.; 1 Trans.; slight anisocytosis, microcytes predominating.

Blood, stools and urine negative for B. typhosus. This case ran an irregular temperature for 6 days and then hit subnormal and remained cured. Discharged on the eleventh day, with the ambiguous diagnosis of enteric fever. I do not think it was typhoid; certainly it was not proven typhoid.

Comment: None of these patients had ever had inoculation against typhoid, nor, so far as is known, had they had typhoid fever, and none of them comply with the rules for diagnosis of typhoid.

## Observations from the Lighthouse

### The General Management of Peptic Ulcer

(Subject continued from April Journal.)

Because of the possible postoperative complications of gastro-enterostomy (such as gastrojejunal and jejunal ulcer) and the possible mortality of partial gastrectomy, together with the uncertainty of the future with a completely achylic stomach, Frank H. Lahey (Boston M. & S. J., 195:980, Nov. 18, 1926) believes that he who operates upon gastric and duodenal ulcer today is, in the face of the above facts, solemnly bound to be certain that medical management has been adequately applied, or that the patient is clearly aware that he or his circumstances are responsible for its failure to be adequately utilized.

In accordance with this conviction, Lahey has employed the Sippy plan of treatment for the past 2½ years in his own clinic, not because he believes that excessive acidity is necessarily the origin of gastric or duodenal ulcer, but because under this therapy he has so constantly seen both relief of symptoms and x-ray and laboratory evidence of improvement of the ulcer. No patient with possible gastric or duodenal ulcer is accepted unless he will go to bed prepared to stay 3 weeks if necessary. During this time the probable diagnosis may be determined, and, if surgery is not indicated, the proper medical management may be instituted with training in the plan which must be followed for a year in the treatment of the ulcer. During this year the patient returns to the hospital for an overnight stay once every two months. At this time the stomach is aspirated at 9:30 and at midnight to determine whether neutralization is being effected; an Ewald meal is given in the morning to determine the degree of gastric acidity; the

patient is fluoroscoped for x-ray evidences of healing, and the carbon dioxide combining power is estimated to determine the effect of prolonged feeding of alkalis and the possibility of ensuing alkalosis.

When relief of pain has not been effected within 7 days, or when pain returns after patient has left the hospital, the case is regarded as one for surgical treatment. Perforation, complete or incomplete, is immediately accepted as an indication for surgery, as are also recurring hemorrhage and persisting microscopic blood in the stools (gums being eliminated). A single large hemorrhage, or several such hemorrhages, in a patient who has been untreated or inadequately treated is no contraindication to a trial of non-operative management. Not every pyloric obstruction is surgical, nor does it become so until it has been demonstrated (if patient's condition permits) that it is not relievable by rest and medical treatment. The majority of cases of pyloric obstruction are seen in connection with an active gastric or duodenal ulcer and are the result of pyloric spasm and involvement of the pylorus in the exudate associated with the active ulcer.

The demonstration of gastric carcinoma with its typical x-ray and gastric content findings, together with its suggestively short and nonperiodic history, leaves no one in doubt as to the need of immediate radical surgery. As to the percentage of malignant degeneration of gastric ulcer, present figures range for the most part from 10 to 20% of cases. In the borderline cases, especially where pathologic reports are contrary to clinical impressions, Lahey seeks preoperative help in determining the presence or absence of malignancy by noting the effect of medical measures. Those gastric lesions in which there is no complication of malignancy will in general show a marked improvement in the x-ray picture under 7-10 days medical management, while those with malignant involvement show persisting and unchanged x-ray defects, and frequently persistent occult blood in the stools, in spite of accurate and painstaking medical treatment and complete rest.

In gastric ulcer uncured under medical management, Lahey employs partial gastrectomy where there is any question of malignancy, and in those chronic ulcers where it may, in the operator's opinion, be employed with but a moderate risk. In all other cases he performs a gastro-enterostomy and observes its effect. If under this and medical management the ulcer still persists, resection is then undertaken with the alimentary stream already established.

In the surgical treatment of duodenal ulcers which have failed to be cured medically the author agrees with many other authorities that partial gastrectomy with its postoperative achylic stomach removes the lesion, produces lasting relief from symptoms and is not followed by gastrojejunal or jejunal ulcer. In this relatively benign duodenal lesion Lahey is not prepared, however, to accept the higher mortality of partial gastrectomy, nor is he prepared to sacrifice off-hand the acid-producing portion of the stomach with permanent gastric achylia.

In closing, he stresses the point that he who accepts a patient with gastric or duodenal ulcer, accepts also the responsibility for his preoperative and postoperative care. The patient also is to be held to strict accountability for adherence to the plan of treatment, with due allowance for the exigencies of his life, needs and occupation. It is distinctly necessary to impress upon patients



preoperatively that the almost universal impression that by means of surgery not only will all of their symptoms be relieved, but also they may eat and drink anything and live as they have always done, is wrong.

### The Medical Aspects of Peptic Ulcer.

With the combined available methods for diagnosis of peptic ulcer, it is estimated by Franklin W. White (Boston M. & S. J., 195:983, Nov. 18, 1926) that an accurate verdict is now given in 90% of cases. In spite of the fact that duodenal ulcer is one of the most definite of clinical diagnoses at the present time, he believes that about two-thirds of these cases are identified very late and he urges that the family doctor keep more clearly in mind the early ulcer picture, using x-ray examination promptly and making the diagnosis when the patient is younger, the attacks short, remissions long, and before complications have developed.

In judging the results of medical treatment the x-ray evidence must be closely correlated with changes in symptoms and other physical signs. The patient may be relieved of discomfort, and gain in weight, but the roentgenogram may give the best evidence of a severe lesion by showing failure to heal. The facts that the crater may fill with food or mucus and appear healed, and that the stomach may be rotated at subsequent examinations and the ulcer hidden, call for most careful work. Testing the feces for blood is an important routine. Positive or occult blood appearing in the feces after 5-7 days medical treatment must be explained.

In selecting cases for medical treatment, one thinks first of the absence of complications, such as bleeding, obstruction and perforation. Duodenal ulcers are preferred to gastric, not so much on account of the cancer risk but because they give better results under medical treatment. A bland diet is essential and easily understood. Frequent feeding is the great thing and must be emphasized—6 times a day or even more at the beginning. The author does not use many drugs. Alkalis simplify treatment; atropin is a standby to relax spasm and check hypersecretion; bismuth has some value. Tobacco has an important effect on stimulating spasm and gastric secretion and antagonizes the rest of the treatment. It is important to remove all sources of infection in the remission period. Results of medical treatment show that 50-60% at least of duodenal ulcers, and at least one-third of gastric ulcers, are cured and stay cured, even if followed for long periods.

Treatment of remissions is a crucial point in medical management which is often neglected. It is usually easy to stop a recurrent ulcer attack, making the patient comfortable in a few days. The difficulty begins when he is symptom free and finds the regimen irksome. The physician should explain at the start the chronic nature of the disease, the tendency to recurrence, the necessity for a periodic report and careful supervision for at least 2 years. A late follow up of these patients for 3 to 5 years is of great value in ascertaining real end-results. Figures for so-called cures are decidedly higher in the first year or two after treatment is begun than 3 to 5 years later.

Overlapping of medical and surgical cases should be guarded against. It is unwise to keep cases of pyloric obstruction too long under medical treatment, and it is unwise to operate on uncomplicated duodenal ulcers in young persons

with long remissions, who could easily be cured by medical means. The patient who has recurrent hemorrhages under careful medical treatment presents an occasionally serious dilemma. Operation may be delayed in the hope of getting him in better condition and another hemorrhage may cause death meantime. The details of the medical management are the old fashioned ones—absolute rest, opium, rectal feeding for a day or two—with the important addition of blood transfusion.

Pyloric obstruction is due in one-tenth of cases to organic tissue narrowing, in nine-tenths to spasm. Unless the 6 hour residue disappears in a few weeks of medical therapy, surgery is usually indicated, although there are some patients whose recovery is slower but eventually satisfactory.

The results in 206 ulcer cases in the author's private practice, and which have been followed for 3 to 5 years are given as follows, the percentages for duodenal ulcer preceding those for gastric ulcer; well 57, 30; better 21, 24; no better 4, 0; immediate operation 2, 14; operation after medical treatment 16, 28; died (under medical treatment) 0, 4. One of the 2 deaths (4%) was due to cancer developing in a large inoperable tumor in an elderly man with heart disease; the other case was complicated by diverticulitis of the sigmoid.

After discussing the figures of various investigators in regard to the possible development of cancer on the base or border of a chronic ulcer, together with his own experience, the author observes that one is left with the impression that nearly all cancers supposed to develop from chronic ulcer have been malignant from the start.

### General Resumé of Peptic Ulcer

In contributing the last paper to this symposium, Charles H. Mayo (Boston M. & S. J., 195:-988, Nov. 18, 1926) said in part: From such information concerning the development of ulcer as we now have, we must consider the condition of the individual (the soil), that the local condition is possibly created by spasm set up by the sympathetic nervous system acting on muscles and vessels, and that the bacteria (the seed) are probably not extraordinary and rare, but are common organisms to which all are exposed. The gastric tissues are vulnerable to the attack of the bacteria under certain conditions, such conditions being those that would predispose to stasis of circulation in small areas of capillaries in the mucosa. The stomach is subject to the highest acidity in the body and presents the greatest soil for cancer.

Well-to-do patients can better care for a chronic ulcer by medical means than can the poor. Those medical men and surgeons who work at hospitals where necropsy is obtained in a high percentage of cases are surprised to note that chronic ulcers of the stomach or duodenum have existed not infrequently without symptoms, and that many penetrating and now healed ulcers are found without symptoms of any stomach complaint ever having been elicited from the patient or knowledge of same from the family. It is probable that a great variation in sensitiveness of the gastric mucosa occurs, and that hypersensitive as well as hypersensitive areas may exist in the stomach.

For the good of the patient there should be harmony of consultation, discussion and decision as to the method of treatment, and the surgeon should give way to the internist in the matter of

diet and after-care. Gastrojejunal ulcer is seldom relieved by medical care and the surgeon should resume control. Patients with ulcer not benefited by medical care within reasonable time are best operated on and there should be little difference of opinion on this point. It is certain that disease of the appendix and gall-bladder are often associated with ulcer in the same patient who cares little as to the cause of his trouble if he may but be relieved, and he should be.

The early work of the great surgeons who developed surgery of the stomach reads like a romance with a higher mortality. In 1881 and 1882, Billroth developed his No. 1 operation, excising the pylorus and a part of the stomach, reducing the open end of the stomach by suture until it fitted again the open duodenum to which it was attached by suture. In the condition of starvation and low resistance to which patients were reduced in those days, the mortality from peritonitis and leakage was 70%. In his No. 2 operation, Billroth completely closed the end of the stomach and the duodenum, making a posterior gastro-enteric anastomosis. Kocher attached the end of the duodenum to a new opening on the posterior wall of the stomach. Then the anterior operation of gastro-enterostomy was developed, by suture, by the Connel decalcified bone-plates, by the Murphy button and the Mayo Robson bone bobbin. The first pyloroplasty was done by Heinicke and Mikulicz, who made a division of the pylorus from stomach to bowel, spread apart the opening and sewed it transversely; but the tissue was inflammatory and leaked or failed to accomplish the permanent enlargement. Rammstedt developed the division of the pyloric muscle which is still the operation of choice, and the most successful, for pyloric stenosis in infants. Finney developed his pyloroplasty in 1892. For the treatment of obstruction and ulcer the posterior operations were given a place of choice, first the long loop which later was associated with entero-enterostomy; still later came the Y operation of Roux; gradually the posterior no-loop operation was evolved, no change being made in the position of the upper jejunum as found. This is the common operation of today.

Most of the writings of surgeons for the last several years have been favorable as to the results of gastrojejunostomy for ulcer of the duodenum. The Polya resection of the stomach for duodenal ulcer seems too extensive for the average case, although it is probably justified in many cases of ulcer of the stomach. We are now finding that marginal ulcers can occur after operation by the Polya method.

#### Causes of Failure in Treatment of Peptic Ulcer

It is regrettable, says John H. Fitzgibbon (Northwest Med., 25:592, Nov., 1926) that a number of ulcer patients are given temporary relief from distress without alteration of their true condition, under diagnoses of "hyperacidity, gastritis, indigestion, etc.", and ulcers are allowed to progress undiagnosed. As time passes, these often cause cicatricial obstruction or deformity of the stomach or duodenum. Not uncommonly hemorrhage or perforation occurs. Thus lesions that were originally simple become complicated and treatment is more difficult. The importance of a detailed history and examination in all patients complaining of abdominal discomfort cannot be overemphasized. A negative x-ray report does not always mean absence of ulcer, and clinical tests under observation are often necessary to verify diagnosis. This being

established, the question of etiology must be considered. It may be assumed that, if focal infection is a cause of ulcer, surgical removal or medical treatment without removing the cause is likely to be followed by recurrence. This, however, does not mean indiscriminate removal of teeth, tonsils and other removable parts.

Large deforming ulcers of long duration are better treated surgically because of the extent of scar tissue and possibility of malignancy. Painless duodenal lesions of long standing, associated with scarring and retention of gastric contents, usually do not respond to medical treatment, while painful lesions in this area, associated with spasm, inflammatory swelling and edema, generally show a marked response, even though retention is present. Sippy has shown that between 80 and 90% of all cases of pyloric obstruction, due to ulcer, will improve on accurate treatment so that at the end of 3 weeks a large motor meal will pass in normal time. This does not mean, however, that the condition is cured in that length of time, but that spasm, edema and inflammatory swelling subside and the pyloric outlet is sufficiently opened to allow the stomach to empty in 7 hours.

After a decision is made in favor of medical treatment, one must not forget that patients are individuals, each having his own peculiarities and variations which must be looked into and cared for, if treatment is to be successful. It is too commonly assumed that the Sippy treatment is a routine method applied to all alike. Nothing could be further from the truth, and it has been repeatedly stated by the originator of the method that success depends upon accuracy in controlling individual variations.

One of the most common difficulties met with in the medical treatment of ulcer is the complication known as "continued secretion", in which, as a result of irritation of the gastric glands by retained contents, an abnormal amount of highly acid gastric juice is poured out during the evening and night hours, even though the stomach is empty of food. If the peptic action of gastric juice causing digestion of healing granulations, is one of the factors which prevent chronic ulcers from healing, it is not difficult to imagine that healing gained during the day may be undone by excessive night secretion. Controlling this complication will allow many hours of rest for the diseased stomach or duodenum. Many patients who have night distress have this condition, and if the stomach contents are aspirated at the time of distress an abnormal amount of highly acid contents will be removed, followed by relief. This complication can be controlled within a few days by accurate neutralization and removal of irritating gastric contents. It is well to mention the fact that ulcer treatment cannot be accurately controlled without the use of a stomach tube. The inconvenience is more than compensated for by knowledge gained and results obtained.

The poor results that sometimes follow medical treatment of jejunal ulcer developing after gastro-enterostomy may be due to the fact that trypsin is a powerful proteolytic ferment which is not influenced by controlling gastric secretion. Healing granulations are digested away even though peptic action is stopped. There are perhaps to a certain extent tryptic ulcers.

Alkaline management should not be continued in patients who show toxic symptoms, as tetany may result. It must be remembered that pyloric obstruction associated with vomiting sometimes causes alkalosis and gastric tetany by depletion of body acids.



## Medical Book Reviews

(Department Director, Royce Paddock, M.D.)

**TRANSFUSION OF BLOOD.** By Henry M. Feinblatt, M.D., Assistant Clinical Professor of Medicine, Long Island Medical College, Brooklyn, N. Y. Published by Macmillan Co.

This is a very good summary of the status of blood transfusions as it exists today. The chapters on the history, physiology and blood grouping are clear and concise in their treatment of this phase of the subject. The author is to be especially commended for the care and methods which he recommends in the selection of donors and for his warning against the indiscriminate use of "universal donors". The chapter on post-transfusion reactions is very well covered. Anaphylaxis is shown to be the chief factor in so-called unavoidable reaction. In discussing the indications and results of transfusions the author could go into considerable more detail to good advantage; he summarizes from a number of good authorities and from his own series, but is altogether too brief in his treatment of this very important and too little understood phase of the subject. Too much emphasis and space is devoted to a discussion of the authors own apparatus which, although it presents some advantages, hardly justifies the opinion that a simple and adaptable method like the Lindemann is obsolete. In the concluding chapter it seems illogical to recommend the citrate method for exsanguination transfusion when, because of the higher percentage of reactions, this method is not employed in less critical conditions.

**THE PRACTICE OF MEDICINE.** By A. A. Stevens, A.M., M.D., Professor of Applied Therapeutics in the University of Pennsylvania, Philadelphia; Visiting Physician to Philadelphia General Hospital; Consulting Physician to St. Agnes Hospital, Philadelphia. Second edition. W. B. Saunders Co.

This second edition of Stevens' Practice of Medicine maintains the same high standard of excellence found in the first. As stated by the author, in the preface of the first edition, the endeavor has been made to present descriptions of the various internal diseases which should accord with the present state of our knowledge, and which, though concise, should give to the student and practising physician the most necessary points in pathology, diagnosis, and treatment. This endeavor has been realized and the book well fulfills the purpose for which it was intended. The text contains many changes and much new matter has been added to bring the book up to date. Among the subjects treated in this edition for the first time are: tularemia, etiology of scarlet fever, Dick test for determining susceptibility to scarlet fever, epidemic jaundice in the United States, vasomotor rhinitis, occlusion of the coronary arteries, melanuria, Epstein's nephrosis, sickle cell anemia, primary meningococcic bacteriemia, disseminated erythematous lupus, coccidioidal granuloma, lipodystrophy, agranulocytic angina, uveoparotid fever, Ayerza's disease, chronic sclerosing osteitis, acrodynia and Horner's syndrome. The list of diseases covered is very complete and, on the whole, the description of each disease is fully adequate.

In reviewing a work of this size it is not possible to comment on more than a few of the diseases described.

The subject of tuberculosis is well covered but no mention is made of blood pressure, the differential diagnosis between pulmonary tuberculosis and malignant disease of the lungs is mentioned but no differential symptoms are given, and the effect

of pregnancy on tuberculosis is only very briefly discussed.

The article on pneumonia is very good but many would disagree with the author's statement that the results of preventive inoculation are encouraging.

In the treatment of typhoid fever the Brand cold bath is highly regarded and it is stated that mortality has been reduced by its use. Twenty years ago the use of the Brand bath was almost universal but today its use is limited and I do not believe the mortality has increased in consequence. The vaccine treatment of the disease is spoken of as still being in the experimental stage and as being harmless. The results of its use were not encouraging and its use in treatment is not always harmless.

The communicable diseases are very well described. Conservative views are expressed on the value of serum in the treatment of scarlet fever. Tropical diseases are also very completely and adequately handled.

The article on diabetes mellitus has been rewritten and brought up to date. A clear exposition of the disease is given, insulin therapy is gone into in detail, and very practical diet charts are presented.

The presentation of diseases of the stomach, diseases of the circulatory system, and diseases of the kidneys are deserving of special mention. These subjects are presented in a clear, concise, and thorough manner.

The arrangement of subjects is systematic and convenient, the paper is good, and type legible. The book contains a number of typographic errors.

This edition more than maintains the reputation earned by the first edition and should be popular with both students and physicians.

## Current Events

### TRISTATE MEDICAL CONFERENCE

(Continuation of report of proceedings of meeting held in New York, February 26, 1927.)

#### FIVE MINUTE TALKS ON PENDING LEGISLATION

*Dr. Fisher:* Having concluded discussion of the special topic assigned to this conference, the Secretary has suggested that we call for short reports from each state, regarding pending legislation in the respective states. I will ask Dr. Reik to report for New Jersey.

*Dr. Reik:* Inasmuch as the legislatures or general assemblies of all 3 states are in session at the present time, I thought it might be wise to have a review of the pending bills and see if there were any points on which we could help one another.

It happens in New Jersey that we have the usual influx of bills calling for the formation of separate boards of medical examiners; for instance, there is a bill to establish a board of chiropractors, a board of osteopaths, a special board of examiners for cosmetologists, or beauty parlor specialists. There are some amusing features about some of these bills which I would like to speak about, but I have written them up more or less completely for the March number of the State Journal and you will find them there. I may say that we feel at the present time that there is no real danger of such legislation passing this year though we will feel more content when the legislature has adjourned.

In relation to the repetition every year of attempts on the part of the cultists to secure special

boards of examiners, we have started a campaign of education and the Journal is running a series of articles. No. 1 appeared in February, taking for the theme that well known article prepared by Mr. Kelly, of Chicago, which will be republished in the State Journal sectionally with commentaries. The officers of the State Society are agreed upon this, that there should be a certain established pre-medical education and then a requirement on the part of the State Board of Examiners as to graduation from recognized schools and examination in the fundamental branches of medicine, so that if a man can pass these examinations he may practice any sort of therapy that he pleases, whether it is rubbing the individual's back or pulling his leg, but to make one door of entrance to the medical profession for all who would practice the healing art.

Coincidentally, we have started another bit of propaganda, a little pamphlet on the subject of "The Relationship of the Medical Man to the Public", gotten out in a primer of question and answer form. This will be widely distributed throughout New Jersey, in an effort to get the public to really understand what we mean and why there should be uniform medical education instead of these series of boards.

*Dr. Frank C. Hammond*, Philadelphia, Penna.: Our state legislation is running true to form in the number of bills wonderfully and fearfully put together in the matter of public health, but the matter that would possibly interest our conference more is an Act to Regulate the Practice of Medicine. The "One Board" bill has been discussed on several occasions. We feel, after all is said and done, that it is the best procedure to adopt the non-designate bill and try to establish one board in the state of Pennsylvania. The homeopaths are not back of this bill. They are opposed to it because they want equal representation on the board. There are roughly speaking, 10,000 regulars, 800 homeopaths, and 100 eclectics in the state. There is a great disproportion and yet the homeopaths demand equal representation with regulars on the board, so we are trying to put the bill through single handed.

We have once before had up for consideration by the conference the situation in regard to "Workmen's Compensation". Our state committee will report on that in the next issue of the Atlantic Monthly, as follows:

"The thirty-day limit has always been deemed unfair to the injured man and the physician, and it suffers by comparison with the compensation laws of states adjoining Pennsylvania. Provision for rehabilitation of the injured man is wanting. It is not sound economics to deprive the injured man of what, in many cases, is the most beneficial phase of his treatment.

The physician has no standing at law, nor has the hospital. The defect makes it difficult or impossible for either to receive justice in event of litigation brought to protect either interest.

The thirty-day limit can be extended in suitable cases, as judged by the proposed medical boards or other established authority. Provision will be made to cover further payment for hospital and medical care.

As the physician has been notoriously careless in the matter of filing accurate reports on compensation cases, and especially in failing to do this promptly, the new law carries a penalty for failure to do these things. This is only a matter of good business, and will receive the support of the insurance carriers. Insurance carriers are to choose their own physicians and surgeons.

Universities of rehabilitation and reeducation are to be asked for. It is doubtful if such a request

will be granted at this time, but we desire to go on record as recommending such a valuable addition to the treatment of the injured man.

In event of dispute as to whether death occurs from accidental or natural causes, autopsies are to decide the issue. This is a very important matter, and, obviously, accurate decisions can be made only in this way.

It is hoped that the Compensation Board will include a physician as member. This will be a great help, and should have been provided for originally, as so much of the work of the board deals with medical problems.

There are several other minor proposed changes but for the sake of brevity they are not discussed at this time, especially as they are not likely to be objected to by the profession. Many physicians feel that if the law is changed we should ask for one that is ideal in every respect, including a provision for paying the physician a fee that he feels is fully commensurate with his services. The commission has a deep sense of its obligations to the profession, and would prefer to put through the ideal law. However, our researches have led us to recognize limitations in our demands.

Another point that has been objected to is the matter of permitting insurance carriers to choose their own physicians. The carriers will oppose any other interpretation of this point. To leave it out would only defeat us as we cannot ignore the interests of the insurance carriers. Furthermore, the present law already extends this privilege to the employer, and while it may work a hardship in some cases, in the end it is too fair a provision for us to try to change.

The commission sees no equity in the protest of certain societies against the provision for making accurate and prompt reports to insurance companies by the physician. The ultimate result in this case is that the physician is paid much sooner than where the usual delay occurs. In addition, it greatly expedites the work of the carriers, and is a just and fair provision."

*Dr. Lawrence*, Albany, N. Y.: There is not very much activity in legislative matters this year, due partly to the fact that the Government has been reestablished, the departments have been consolidated and reorganization bills have been reintroduced and must be passed before other matters can be taken up. Nevertheless, we have some things before us. There are probably a dozen compensation bills in at present. One which is making headway has to do with determination of the amount of loss of eyesight and the compensation therefor. It applies the method which was recommended by the American Medical Committee which investigated the matter several years ago. The other compensation measures will not be acted upon, perhaps, until after the committee which was appointed last year to make a study of labor conditions in New York State has made a report. They have made a preliminary report but they have requested and been granted an extension of time to prepare their final report, and legislation is waiting upon that.

Of course, the chiropractors are likewise held up because of the investigating committee which was appointed last year to study that subject. There is one chiropractic bill in which is quite a joke. A member of the assembly introduced this bill as an amendment to the public health law. That part of the public health law which he proposed to amend will be repealed by the reorganization bill, so he will not get far.

The physiotherapists have introduced a bill trying to make themselves independent of the physician. That, too, is based on the old law and will fall flat later.



There is a "Cosmetologist" Bill too; they want to be recognized but they are quarreling among themselves because their bill is included in the Barber's Bill. They are having a lot of trouble in finding some state department that will permit them to have their law written in. They wrote their last into the Department of Health and now they are trying to get it into the Department of Education. They want a law, but nobody wants them.

*Dr. Fisher:* Will Dr. Krusen give us some idea about the \$50,000,000 requested in his state for the insane?

*Dr. Krusen:* We are trying to do the same thing that you are trying to do in New York State. We are trying for the second time to get this through the Legislature so that we may submit it by referendum to the people. It would provide Pennsylvania with \$50,000,000 to spend for better institutions for the insane, for homes and asylums for the feeble minded women of child-bearing age, and for improvement in the other institutions. It is a very important measure to us. I am afraid it is going to be defeated.

We have also a "Cosmetologist" Bill and a Barber License Bill introduced.

*Dr. Arthur C. Morgan,* Philadelphia, Penna.: To Pennsylvania will fall the honor of entertaining the conference at its next meeting, and on behalf of our President, Dr. Albertson, of Scranton, I take pleasure in extending to the conference an invitation to meet in Scranton on the next occasion. Scranton is quite convenient for the New York City contingent to come up on the Delaware & Lackawanna. The New Jersey people can come via Philadelphia. We feel that it offers a not inconvenient meeting place and we can assure you that we shall endeavor to provide for you in proper manner. The detailed arrangement will be in the hands of our very efficient Secretary, Dr. Reik. Would it be agreeable to the conference to meet in Scranton?

The motion to meet in Scranton on the next occasion was put to the conference by the President, was duly seconded, and unanimously carried.

*Dr. Reik:* Does Dr. Morgan desire to leave the principal topic for discussion open, or shall that be taken care of by the President of the Pennsylvania State Society?

*Dr. Morgan:* The President has a hospital question to be submitted and has already invited someone to speak on that subject.

The President then introduced Dr. Dougherty, Secretary of the New York State Medical Society.

Luncheon was then served in Parlor B of the Hotel Pennsylvania.

#### THE NURSE QUESTION

*The President:* Dr. Van Etten has something to tell us about his Nursing Committee and it will probably be divulging no secrets if he gives us some of the fine points that he is going to present at the next meeting of the A. M. A.

*Dr. Van Etten:* I have nothing much to say except that the 2 committees of which I happen to be chairman, the New York State Committee and the American Medical Association Committee, have been working together and have accumulated a very large amount of material which is largely represented by the expression of opinions from a great many people. I have been working on this subject for about 3 years without any solution of the problem. I presume nobody has arrived at any solution of the problem but we have some ideas that may be conducive to the mechanics of the problem, for instance development of central or official registries for nurses and the development of group nursing, the development of part-time or

hourly nursing; questions of that kind which are really associated with the mechanics of nursing but do not solve the nursing problem.

We have submitted as a definition of the "basic nurse", that she should be a nurse trained for 2 years, sufficiently qualified to nurse patients in hospitals and homes. We have gone into a study of the curriculum in a general way, but not in a specific way because we haven't had time to do that, but I am anxious to have you think about the feasibility of continuing the study on the plan of having the fundamental subjects of the nursing course made a prenursing course. For instance, anatomy, physiology, chemistry and bacteriology to be taught before the real nursing course begins. The trouble with the teaching of these subjects in the training school is that very often the teachers are not there. They complain that they cannot afford to pay for such teachers. My notion is that of simply suggesting a plan whereby anatomy, physiology, chemistry and bacteriology be placed in a prenursing course, to be carried on in junior colleges, universities, high schools or any other place that anybody wants to take these courses, and that the nurses be required to take an examination in these subjects, and passing this examination will qualify them to enter schools of nursing. I don't care where they take this course in preliminary education so long as they get it. Of course, that is going to be very violently discussed because it will disturb the curriculum of many of the training schools. At the same time it will give the nurse what she ought to know in those 4 subjects before she goes into the hospital training school. Then she will get the application of her previous knowledge along the different lines and she will not be obliged to stay in the hospital training school so long. That is, she will get her whole 2 years in the training school studying the art of nursing by demonstration, by participation and by practice. And after all, that is the fundamental way to educate anybody, by participation.

Now, that is the question I have been sending around all over the United States in the last few weeks. I have sent this to all the state society secretaries to see what their reaction would be to the suggestion that we further study this plan. I know it is going to create a storm of disapproval from the nurses at the training schools. They will want to go on giving the training in a certain way, but I believe this is a suggestion that may help out a good deal toward solution of the problem. It is worth discussing at least. I would be very glad to have this group discuss it.

*Dr. Morgan:* I want to report that our Editor gave considerable space in the last issue of the Atlantic Medical Journal to the previous Tristate Conference held in Atlantic City. You will remember that Dr. Van Etten's paper, very constructive, provoked a good deal of thought and discussion and I notice now that the county bulletins throughout our state are beginning to excerpt the paper. There is considerable favorable comment seeping through already in the printed page, and as I go through the state during the next year I have in mind presentation of the subject based on Dr. Van Etten's paper as presented at that time. I feel that it was very valuable, constructive and leading to a greater sphere of usefulness and enlargement of thought both in information and opinion, that in turn will come back to the writer of the paper.

*Dr. Morrison:* I regret very much that I was not able to attend the Atlantic City meeting of the Conference. This is a subject that comes home to me very closely. The nursing problem is one that was and is one of the greatest problems. There was a time when it was easy to secure the

service of a nurse. Today it is difficult because after she graduates she goes into social service work or something of that kind and this cuts down the nurses available for general nursing by about 50%. There is a lack of response to all inquiries sent out; in other words, the source of supply is markedly diminished. Women entered the training school at one time with a high idealism; now they enter it as a means to an end.

It impresses me that Dr. Van Etten's suggestion that nurses take a prenursing course will further markedly curtail the number of nurses that we shall have available. It will mean that the prospective nurse cannot secure in the public school or high school the education that is necessary to fit her for training as a nurse. She must leave home and spend a year, at least, in some special school before she can enter a nurse's training school. That is a subject that needs considerable thought.

*Dr. Dougherty:* I want to endorse every word that Dr. Morrison has just said. I am a teacher. I have held a Professorship for a great number of years and have lectured in what is one of the best training schools in the country, the New York State Training School for Nurses. Dr. Van Etten's idea, of course, takes in one class of nurses. If you follow his ideas you are training girls for public health service, for social welfare work and things of that character, and for teaching in schools of nursing. But, gentlemen, as physicians and as hospital surgeons we don't want that kind of a girl. We need bedside nurses and a bedside nurse who has a good common English education. A grammar school education, even, is far better if she is well trained in bedside nursing and is competent to think along the lines of instruction which the surgeon gives her. She will make a far better nurse than a girl who is so highly educated that she looks down on the interns in a hospital as being inferior to her. The trouble we now have is that the nurses will not take instruction from the surgeon, for they think they know more than the surgeon does. They are not willing to work as they used to work. Interns are not willing to work now, either. I remember as an intern I worked 24 hours a day if necessary. My interns don't want to work 3 hours out of the 24 and the nurses are always trying to shirk certain duties that a nurse is primarily for. I would rather have a woman who could clean a patient and clean a bed pan, know how to take a temperature and know the little salient points that she should report to me, than the nurse that really takes my place and seems to impress the patient that she is really the surgeon. That is what we are up against, and that is the reason we are not getting the right kind of nurses.

I had a girl come to my office from Syracuse. I knew her as a patient for a few months before she left New York for Syracuse. She was in charge of the clerical work in the telephone center. She was only married a few months when she became a widow and wanted to take up nursing. I sent her to the medical school. She would have made a good woman to take charge of the sick but they turned her down because her preliminary education was not of the standard that the school required, in spite of the fact that she had been at the head of the clerical telephone force in Syracuse. That is a perfectly ridiculous situation.

Nursing is not a profession, it is work. It is a profession if you are training nurses to be instructors, but if you are training them to take care of your patients it is not a profession, it is work and they should be taught this fact.

I had a conversation the other day with our Supervisor of Nurses and with the Superintendent

of the Training School who told me they thought a girl made a wonderful nurse if she had a Bachelor of Arts degree. Our Supervisor of Nurses said she wanted only girls of superior intelligence and high education. She happens to have an A. B. degree, from Wellesly I think. What becomes of a girl like that if she doesn't go into public service? She follows the natural bent of all girls and gets married; at least 70% of them do. The great majority of the other 30% go into some other kind of work and we have only about 10% or 12% actually left to engage in nursing.

*Dr. Van Etten:* May I reply to Dr. Dougherty that that is exactly what I have in mind,—giving the girls the preliminary education before they come into the nursing school and confining their 2 years' training there to care of the patient by demonstration and by participation in nursing work. The whole thing, to my mind, that is important is the *art* of nursing and it is the art of nursing that we want to teach. I don't care what these nurses do after they get out of the training school. They may become more efficient, if they please, in postgraduate work, but while in the training school I want them to have their whole course devoted to development of the art of nursing and to have their general educational part done beforehand, and making that quite limited. The limiting of that education is what is going to bring disagreement with the committee.

*Dr. Farmer:* It is very interesting to listen to this discussion. I think it is too bad that we can't do something to keep the supply of nurses up to the mark. When I was Commissioner of Health I saw some of the most promising girls putting in their applications for employment as public health nurses. I think the committee should bear that in mind and if possible have the nurses who want to do public health work trained for that purpose so they will not keep somebody else out of the hospitals.

*Dr. Van Etten:* Do you think there might be some such rule promulgated in the nursing profession that they should be required to remain as bedside nurses for 5 years after graduation before they entered into the special branches of nursing?

*Dr. Farmer:* I think they should be bedside nurses for a time. In one training school that I know of, the girls are spending most of their time just getting theoretic knowledge without having to do much floor duty, so that when they are getting their training in actual nursing they are not disturbed by these other things. It has worked out satisfactorily. I do think that from some of the examinations, often given by the doctors themselves, it would seem that the schools are trying to train doctors and not nurses.

*Dr. Van Etten:* Those examination questions are often written by doctors and not by nurses. Every specialist we wrote to regarding the syllabus for examination dwelt on his particular specialty. I brought these questions up at the medical meetings throughout the state and the doctors laughed at the questions. There were very few physicians in the group who could answer offhand all the questions that were asked the nurses as a basis for their graduation.

*Dr. Morrison:* Dr. Van Etten's suggestion that a nurse should pledge herself to 5 years nursing before entering upon special work doesn't amount to anything. The state, at a great deal of expense, educates teachers in our normal schools and we know that our teachers marry. The same thing is true in the nursing profession. The better looking a girl is and the more capable, the more quickly she marries some one. You cannot make her sign an agreement that she will continue nursing, and have her live up to it.



In New Jersey, I am advocating curtailment of the preliminary education of a nurse. I think if we accept girls with grammar school education we will fill our nursing vacancies more quickly and will have a more intelligent class of nurses to take care of the patients. They could go on later, if they wish, to a postgraduate course for "registered" nurses.

*Dr. Green:* The question of the requirements of education for nurses, as was pointed out at the last conference, it seems to me shows that we are really overeducating our nurses and after a nurse has completed her course she doesn't want to work. In the hospital with which I am connected, I have almost come to the conclusion that the nursing authorities there look upon the hospital as a means of teaching the nurse rather than treating the patient. It is not at all unusual, if you have operative work to do in the afternoon, to find it difficult to get nurses because they are all off at class.

These educational requirements have in our state been acquired by the action of the Nurses' Association while we doctors were asleep. The nurses now even have certain requirements that the hospital must provide before the school will be recognized. I remember several years ago, before our new hospital building was erected, we had a nurse come over from the Nurses' Association in New York to inspect our hospital and she informed the authorities that unless certain doors were cut through in the old building, recognition of our hospital would be withdrawn. I am only showing you the power that these nurses assume because, very frankly, it would make it more difficult for our school to get pupil nurses if they felt that they couldn't register in the state of New York.

I think we all agree that what we want of a nurse is work and not too much education, and that is a difficult problem for us to put over because we have in our own profession insisted on the requirements in medical education being raised year after year until now it is hard to get a young doctor to settle in a suburban district. The same thing is holding true, it seems to me, in the nursing profession today. They want a job they can hold during the day time but do not want to work at night.

*Dr. Dougherty:* In the state of New York they require you to build a nurses' home accommodating only one in a room and each girl must have so many cubic inches of fresh air. There shall be so many toilets and so many bath rooms to so many nurses, etc. I know of one hospital where they had to change the architect of the building, although it was being erected by a well known and capable architect, in order to conform to the ideas of the nursing authorities.

*Dr. English:* I knew that we had been having a racket with this nursing proposition in New Jersey, but if you folks in general hospitals have this trouble, what do you think we have in the special hospitals? In our institution we have not been able to hire a graduate nurse for 5 years unless she has happened to have tuberculosis herself. And it is almost impossible today to hire a trained nurse or graduate nurse who knows anything about tuberculosis or the specialties unless she has been sick herself: if she has been suffering with some mental trouble herself then she may be willing to nurse mental diseases. A well graduate nurse is unsatisfactory for 2 reasons: she doesn't want the job in the first place, or if she does take it, she doesn't know anything about it. Prior to 5 years ago I had nurses in our institution who when seeing a patient having a hemorrhage, instead of going to the patient, would drop the para-

phernalia and run, and another patient in the ward would have to come to his assistance. I have seen that happen twice. It has come to such a stage in our own hospitals that unless we train our own people we would not have any nursing staff. I think our tuberculosis institutions are manned almost entirely by either graduate nurses who have had tuberculosis and of necessity had to learn something about it passively if not actively, or by those who cannot go back to the cosmopolitan sections from a health standpoint and are forced to live in suitable environments. But there are not enough of them to go around. So, in addition, we have to select the best material we can get from the improved cases of tuberculosis that go through our institutions and teach them how to care for the others.

*Dr. Sadlier:* From New York's standpoint, if you recall, prior to 1909, every training school in the state had a long list of applicants waiting for admission to the school. The superintendent measured an applicant from every angle. Of course, she had quantities of material to select from. It was not simply a question of education then. It was a question of physical fitness, of adaptability to the work, of health, as well as of education.

In 1909 there was passed by our Legislature and signed by the Governor, a law putting us under the Board of Regents and requiring, I think, eighteen points, and from then on until 1920 this long list of applicants waiting to get in the training schools ceased and the superintendent was compelled to advertise all over the United States and Canada in order to get nurses. Why? Because it eliminated entirely the girl who had gone through grammar or high school, or graduated from the eighth grade. That one year in high school was the crux that made it a condition whereby there was no longer the measure of physical fitness, adaptability, health, etc., but was a question of education only that governed.

In 1920 we went a step further and put the whole matter into the hands of the Board of Regents and a girl must apply to them and be examined to get her "R. N." That has made it much worse. Now, I think the physicians in New York State were responsible for that law. I went to Albany for 9 consecutive years at the Legislature hearings on that Bill and spoke against it. I felt that the laws which permitted a nurse to have an R. N. degree, if she had the education and incentive, were all right, if she wished to be a graduate nurse. The law was good as it was and we had our quota reasonably filled. The tenth year the New York State Nurses' Committee took up the question and although I had been delegated to oppose that law for 9 years, on the tenth year I was turned down flat; I represented nobody and they passed the law without any trouble whatever.

Far be it from me to decry education to any person or group of people, but when we make a standard too high for the nurse, we keep out of the training school that great group of girls who have been deprived of a high school education but who have a reasonable good grammar school education, who are the first born in the large families and know what it is to do housekeeping and take care of the younger members of the family. It is the slipshod young girl who has had all these privileges of education who now becomes a nurse.

*Dr. Reik:* May I say a word about the nursing question upon which Dr. Van Etten has reported. Do I understand him as saying that his committee is going to report in favor of this pre-professional education and then the 2 year course as the regular preparation for nurses; or is there to be provision for more than one type of nurse?

*Dr. Van Etten:* It is the intention of the Chair-

man of the Committee to get data on this point and he simply wants the question presented, the idea being that the technical education of the nurse be done before she gets into the school and that while in the school she shall be educated merely by demonstration and participation and practice.

*Dr. Reik:* But would the scheme prevent any one from entering the nursing school for the 2 year course without having had the preliminary education?

*Dr. Van Etten:* You know the nursing schools require a very elaborate education in anatomy, physiology, chemistry and bacteriology, much more than the nurse needs to know in order to take care of the patient who is sick in bed. Therefore, I am just putting this out as a subject for discussion and inviting people to discuss the feasibility of a plan to have the nurse obtain a very limited knowledge of these subjects before entrance and to have all her time in the hospital school devoted to practical nursing. Several men have replied advocating no lectures whatever in the nursing school, cutting them all out. They advise having all this work done as a pre-nursing course, the course being very limited in a high school or other school. The Rockefeller Report has suggested 28 months training, 4 months in the pre-nursing course and 24 months in the hospital.

*Dr. Reik:* I am in accord with the committee's idea of 2 years of work in the hospital of a professional character covering the fundamental subjects belonging to their profession. I confess to being Bolshevistic about preprofessional educational requirements, and it applies to the medical as well as to the nursing profession. I have always felt that we made a big mistake in regard to the entrance examination for medical students. One only has to look at the record of distinguished American physicians and surgeons of the past to realize how silly it is to require an A. B. degree before a man can go into a medical school, if it is the idea of medical colleges to turn out trained physicians and surgeons, because the vast majority who have done things of a scientific character and of real benefit to the world have not been the men who entered the medical schools with baccalaureate degrees.

When we admit these people into a medical or nursing school it should not be a question of what degree of education they have. My idea about the "basic nurse" was that we should try to give her instruction in a practical course of nursing and the preliminary requirements need be nothing more than physical fitness, good moral character and *intelligence*. There is a distinctive difference to be drawn between *intelligence* and *education*. We have shut out of the medical school some of the best material in the country, men who have not had the opportunity of a university education and cannot, therefore, enter upon the course of medicine. I am sure you have all known some men who would have made wonderful physicians, who have a "natural talent" for the practice of medicine, but who cannot get into any class A school in the United States today. Yet some fellow whose father has jammed him through college, and who is not fitted for the practice of medicine at all, can enter and graduate. Aren't we doing the same thing if we put such a high standard of education on the nursing schools? Isn't it resulting in the same thing?

The point is, in admitting them to a training school, we want to get the individual that is likely to make a good end-product and, personally, I'm willing to go so far as to say that I don't care whether they have any education before they enter the nursing of medical school. That doesn't decri education, either. What we are interested

in is their fitness to nurse or to be physicians when they are turned out. Some of the big medical institutions are turning out men who are fit for laboratory work and for teaching but who will never make *doctors*. So, I would suggest that the committee consider not what sort of a standard shall be set up for *entrance* but let anybody come in that wants to study, who has the ordinary physical ability, a reasonably good character, and intelligence enough to take training, and then put your examination just as stiff as you please at the end of the course. I think if we would do that in medicine we might do away with many of the cults.

*Dr. Lawrence:* I want to say just a word on the nursing question. I want to admit that I realize the force of what Dr. Reik has just said but I do believe, having worked with Dr. Van Etten for quite a while on this matter, that you are misunderstanding him. I don't think Dr. Van Etten's plan will make it any more difficult for us to have nurses, but on the contrary it will make it easier. He is not building a barrier. At the present time, nursing education is of this high quality you describe. Hospitals are being obliged to build laboratories and class rooms to take care of this situation and are extending the course to 3 years. Dr. Van Etten is trying to make the 2 year course practicable but the superintendents tell him that it is absolutely impossible to teach the syllabus in 2 years. Dr. Van Etten has then said why should this be extended because of the class room work in the first year; why can't that be done better in the high school and in a more elemental way? His idea is to push that part of the training back where it belongs. In this way a girl with less education will get in more easily and will go ahead faster. Twenty-eight months is the minimum; with 2 years in the hospital, the other 4 months being taken in some school. Rochester is building laboratories and has 3 women who devote their entire time to the teaching of these elemental subjects to the nurses. If a girl wants to take a 4 months course here, she can do so and then go to the hospital and take her 2 years' training. This part of her education is placed in an educational institution. I am convinced that Dr. Van Etten has the right idea there.

*Dr. Morgan:* The Rockefeller Foundation published books on medical education back in 1900, discussing this subject; showing that we are the victims of old Prussianistic ideas. Flexner and Bevan are the real instigators who started those things that have become the octopus in the medical education of today. Medical education suffered first because they imported this idea of education. It led up to the idea of empire. Then in turn, worshipping at the shrine of education, a classification was attempted by the A. M. A. that resulted in abolishment of many good schools, and fortunately the abolishment of many bad schools too, and now the number of good schools in this country is so few that the law of supply and demand has created such an intense situation that all of the schools remaining and surviving are compelled to measure their applicants by the rule of education and no one school dare apply the so-called intelligence test or the adaptability test, for all must be measured by that rule of figures and grades and points. The situation of today, harking back to 1900, can be traced back to these men with the Prussianistic idea of education, as can be evidenced by any one who will look over the reports of the Rockefeller Foundation.

*Dr. Dougherty:* I have been for over 20 years a member of the medical board of a 1000 bed general hospital with a large training school, and have seen their ups and downs and can trace their



downs absolutely to the fact that they were impressing the idea of higher education upon these girls before they entered the nursing school. I think we should look at this not from the theoretic side of the medical officer. His training has been along health education lines. But I want to say to Dr. Van Etten that his idea of teaching these girls the elements of medical education, taking up anatomy, physiology, chemistry and bacteriology, is advocating the superior complex before entering the nursing school. You are only emphasizing this and making it stronger. Let us say she must be an intelligent girl, not an educated girl. In our hospital we take our interns on that basis and that is the way we should judge our nurses.

*Dr. Morrison:* It is a national slogan that as New York goes the nation goes. Now, I hope from the bottom of my heart that if Dr. Van Etten's report is presented before the State Medical Society of New York and the American Medical Association, it will never receive any support. I say that in spite of the defence Dr. Lawrence has offered for his scheme. If he will admit that the grammar school will give them the education in anatomy, physiology, chemistry and bacteriology that he proposes, it might be all right, but if these schools will not supply that, we are raising the educational standards rather than lowering them. We are putting not a stepping stone to make the course easier but are adding another obstacle to the one entering the nursing profession.

*Dr. Van Etten:* I am trying to cut down the education of these women. I am trying to take it out of the nursing schools; I am not advocating this thing at all in my report. I am asking the men of the country if they think, after a further study of the subject, that it is feasible or if there is any value in a further study of the feasibility of such a plan. I am not advocating it at all. I am simply trying to find a way to lower the amount of didactic instruction for the nurses in the training school. If I put it out of the nursing school and put it in high schools or junior colleges or universities, it is simply to relieve the educational strain in the hospital. I want the nurse to have only 2 years in the hospital and that time to be devoted to the art of nursing as she learns it from her instructors under demonstration and practice.

According to the standards nowadays, they have certain things in their curriculum and it is going to be a Herculean task to take them out. If we can have them given in some such way as I have indicated it will give the woman more opportunity to learn the art of nursing. Beyond the art of nursing which we are after, I want to tell you gentlemen that this is an economic problem. I don't care what you do about it, the thing will take care of itself. The New York Telephone Company, requiring a very small amount of education for the girls that they employ has seen the end of the supply of female workers in this country. Therefore, they are putting in all sorts of machinery to take the place of the uneducated worker. They employ a few skilled people to run the machines and make the work of the company mechanically simpler because they cannot possibly get the women to run the ordinary telephone exchanges. The American Tobacco Company has left New York City because they came to the end of the chapter of female labor here. They have distributed themselves all over the country where they can get cheap female labor. Now, your trained nurse gets \$8.00 a day and your scrub woman gets \$4.00 a day, and she is the least paid worker in this country. So that this thing is an economic problem. The trained nurse is going out of nursing because she can get more money somewhere else. Naturally she turns to public health work

because that is a year round job. The nurse is employed only 75% of the year and therefore she is leaving nursing for a purely economic reason. There are all sorts of fields open to the nurse, but she is leaving the bedside. We want to hold her at the bedside in some way. I am not advocating this plan at all; I am simply suggesting the feasibility of a study of this plan to see if we cannot take out the overeducated nurse from the hospital. They are overeducated and we haven't any business to be creating a class of sub-doctors. The point is to limit this thing to a very small elementary education. While we have the sympathy of some of the educators in this country, a great many of them are against us and are just piling on the requirements, educating these girls foolishly so that they are no longer the adjunct of the physician but usurp his prerogative. They will soon be called first to ask whether the patient needs a doctor. Sometimes now the nurse will take the temperature, make a superficial examination and prescribe, perhaps, or advise that a doctor be called in. If there is any way to stop this overeducation of the nurse I am for it.

*Dr. Fisher:* It gives me great pleasure to introduce to you Dr. Wendell C. Phillips, President of the American Medical Association.

*Dr. Wendell C. Phillips:* I have just been addressing an interesting body of men, the Surgical Corps of the Lehigh Valley Railroad, at their annual meeting. I have come here just to show my goodwill and not with an idea of adding anything, because I don't know much about what you are doing. There is so much in my mind in relation to the practice of medicine that it would take a long time to speak of it. I think the state societies have many serious problems before them and if we are going to have the practice of medicine carried on by family physicians in all localities we have got to help the medical practitioners to meet the new conditions, of which there are many. We older men remember that we never got a word of instruction in our undergraduate course as to prevention of sickness. We were just told how to treat disease; we had lectures on pneumonia, scarlet fever, diphtheria, etc. That day has gone by and the man who is practicing to day is putting his life into the wonderful work of the prevention of disease as well as the care of sickness. The conditions are changing more and more all the time and communicable diseases we may almost speak of now as a thing of the past. We will have to change the character and type of the practice of medicine. Unfortunately, the medical men have not prepared themselves to meet these changes. Every man, woman and child in every community should be a patient of his physician though he is not sick. It is not a problem of sickness, it is a problem of health and the practice of medicine is to be the practice of maintaining health rather than treating disease in the future, and we must help do this thing.

The American Medical Association through its House of Delegates has approved every single method we have suggested that has had as its basic principle the promulgation of public health. Are every one of the physicians practicing in every one of these places fully prepared to meet the new conditions? I am sorry to say I think they are not. There is no better work for you men than to go to your state societies and organize to meet this condition. What will be the result if you do not? At our headquarters I can show you many examples of where a patient has been reading "Hygeia", and one of your states, Pennsylvania, has done great work in the promulgation of Hygeia. Patients read these things and hear them talked of at Women's Clubs. And you can do a

great deal of good work through women's clubs if they are handled properly. Did you ever hear of an antivaccinationist or an antivivisectionist getting before those women's clubs? They are too wise for that. Everywhere, all through the country, the press has taken up these questions and they come or write to the headquarters of the A. M. A. for information and literature on the question of the preservation of health. Hygeia has now a circulation of 50,000, it should be a million, but every month we make clip sheets from that Journal which we send to the great distributing agencies, and we figure that we are reaching 8,000,000 people. It tells them to have a periodic examination and we send them a blank. The intelligent persons says, "that appeals to me" and he takes the blank to his family physician who has perhaps known him all his life. The physician will probably tell him he doesn't need any such thing. Can you imagine that? They do it perfectly honestly because they haven't become awakened to the fact that there is such a thing as preventive medicine. That is your big job.

One of two things is going to happen. I believe the right thing will happen because in the course of events generally the right thing does happen. The public is going to demand protection and prevention. Now, if the medical profession in the communities do not prepare themselves to meet that condition, the Government is going to do it and we will have state medicine. We all hate state medicine and know it is not the proper thing for this country, but we cannot help it unless we do the thing that the people need and that they will demand. If it goes the other way there is just one individual to blame for it and that is the physician himself, because we can beat it and we can do much better work for the community than the state will ever do. When you take the relationship of the physician and his patient, that marvelous relationship that has done so much for the preservation of American character and the American home, out of the question you have taken the great part out of the spirit and the practice of medicine.

Now these are serious facts. For 2 years I have gone almost beyond the limits of any human being and I have taken risks with my health at my age to undertake to do my part as the temporary leader to help to preach this gospel which I believe is based on sound principle.

*Dr. Fisher:* In closing this meeting I want to thank you for the inspiration we have received today and I trust that we shall have a most enjoyable meeting later in Scranton. I don't know whether you have a board of trustees in each state society that are interested in these discussions, or not. The other day, our New York Board wanted to know what we did and why more liberal publications for the profession in general were not issued, and I assured them that I would see that our State Journal got a more elaborate display of reports of these meetings. There are only a limited number of us who come here but these discussions are so valuable that they should be imparted to the whole profession. Hereafter, our Journal will make a more elaborate display of them and I think we will be able to boost the thing along and become a stronger and stronger organization.

*Dr. Morgan:* The Board of Trustees of the Pennsylvania Medical Society have given official endorsement to the representation of our Society at these conferences, have arranged for financial expenses and, in addition, our Editor gives a very extensive review of the entire subject matter after he receives the stenographic report. In the January Journal there are at least 3 or 4 pages given

to the report and many of the points that have already been printed there have been copied in the county bulletins and formed the basis of discussion to take place in the county society, so that in Pennsylvania, at least, we can say that much good is being done for the members of the profession and for the Society by reason of the discussions in these conferences.

## In Lighter Vein

### Breakage

"Why can't this important law be enforced?" "Because," answered Senator Sorghum, "it is broke".

"You mean broken?"

"No I don't. There isn't any appropriation for its enforcement."—From the Washington Star.

### Honesty a Rarity

"You simply cannot find a maid who is honest," said Mrs. Smith. "The last one left suddenly with nine of my towels."

"What kind were they?"

"They were those hotel towels I brought back from my holiday."

### Making It Worse

Elder Sister—Don't you know better than to go telling everybody how much older I am than you are?

Little Brother (indignantly)—I have to, else people would think you were my mother.

### No Hurry

The telephone bell rang with persistency. The doctor answered the call of a tired husband. "Yes?" he said.

"Oh, doctor," said a worried voice. Something seems to have happened to my wife. Her mouth seems set and she can't say a word."

"Why, she may have lockjaw," said the medical man.

"Do you think so? Well, if you are this way some time next week you might step in and see what you can do for her."—Washington Post.

### Dangerous

"What is that fellow's slant?"

"Aw, he's a dangerous radical. He wants people to stop gassing and go to work."

### Boss Was In

A stranger entered the outer office of a pretentious suite and inquired: "Is the boss in?"

"I will see, sir," said a courteous clerk.

Returning, he reported: "Yes, the boss is in about forty dollars. If you will give me your card, I think he would welcome this chance to leave the game."—Milwaukee Journal.

### Anxious to Save Time

Robert, aged six, ardently desired a little sister and was told that if he prayed a baby might come. He did so every night, but results not coming as soon as he wished, he added one night: "Dear Lord, if you haven't the baby quite finished, don't wait to put in her adenoids, 'cause they have to be cut out, anyway."—Boston Transcript.



# Preliminary Program

## MEDICAL SOCIETY OF NEW JERSEY

The 161st Annual Meeting, Haddon Hall, Atlantic City, June 9, 10, and 11, 1927

### ANNOUNCEMENTS

#### Credentials and Certificates

The Committee on Credentials will meet at Haddon Hall on Wednesday afternoon, June 8, and on Thursday morning, June 9. Its office will be open at appointed times during the meeting.

The Constitution requires that all Fellows, Officers, Annual and Permanent Delegates, and Reporters shall register with this committee.

Permanent Delegates failing to register will be marked as absent by the Recording Secretary. Annual Delegates must present to this committee a certificate of election signed by the President and Secretary of their component societies. Without such certificate they cannot sit as members of the House of Delegates.

Every Permanent Delegate must present a certificate bearing the seal of the Society and signed by the Recording Secretary, and without such certificate he cannot register nor vote in the House of Delegates. Nominees for Permanent Delegates cannot register as Permanent Delegates until after their election by the State Society, when they will receive certificates from the Secretary so that they can obtain their appropriate badges.

Certificates of nominees for Permanent Delegates must follow the special form given in the Constitution on Page 12. They should be sent to the Recording Secretary at least one week before the meeting, so that the names may be presented to the Society for election.

Each member of the Nominating Committee should present his certificate to the Recording Secretary before the opening of the afternoon session so that the names of the Nominating Committee may be announced as indicated on the program. The Nominating Committee will meet on Thursday, June 9, at 5:30 p. m., in the committee room.

#### Papers and Reports

All papers read before the Society or appearing by title on the program, whether read or not, thereby become the property of the Society. The author of each paper is required to give the Recording Secretary a legible copy of the same BEFORE reading. The expense of alterations in a paper after it is in type, and the cost of illustrations, is borne by the author. All manuscripts should be typewritten, double spaced, and on one side of the paper only.

Excepting orations and the address of the President, the time to be occupied in the actual reading of a paper is limited absolutely to 20 minutes. Those opening the discussion are allowed 10 minutes each, others 5 minutes each.

Members desiring to present voluntary papers or reports of cases should first have their papers accepted by the Committee on Scientific Work and then apply to the Committee on Program for a position.

Papers and reports not presented when called for by the President cannot be presented at a later time unless the regular order of business is completed.

All members of component societies who are in good standing are entitled to sit as associate members and have the privilege of discussing

papers in the general session, but have no vote nor the right to take part in the discussions of the House of Delegates.

On arising to discuss a paper, the speaker will please walk forward to platform and announce his name and address clearly for the benefit of the Society. No member may speak a second time in any discussion.

All sessions will be opened promptly at the hour set, in order that the program may be carried out as planned.

The Board of Trustees will meet at Haddon Hall, Wednesday, June 8, 8 p. m.

Committees or Boards desiring meeting rooms will please notify the Committee on Arrangements, M. W. Reddan, Chairman, or W. D. Olmstead, Secretary.

The rates at Haddon Hall, on the American plan, are:

Rooms with running water—

1 person, \$6.00 to 8.00 per day.

2 persons, \$12.00 to \$14.00 per day.

Rooms with bath—

1 person, \$10.00 per day.

2 persons, \$14.00 to \$20.00 per day.

#### Exhibits.

Exhibits of instruments, books, pharmaceutical preparations, x-ray apparatus, etc., will be shown in a special room of the hotel and members are urged to avail themselves of this opportunity to examine the very latest improvements in these various departments.

The degree of interest shown by the visitors in these exhibits mathematically increases or decreases the revenue to the Society. It's up to you to help.

Thursday, June 9, 1927, 9 A. M.

#### Meeting of House of Delegates

Call to Order.

Report of Committee on Credentials, W. J. Carrington, Chairman.

Reading of Minutes of 1926 Meeting.

Special Report on Charter, Constitution and By-Laws.

Report on Permanent Delegates.

Nominees for Permanent Delegates.

Election of Permanent Delegates.

Report of Committee on Arrangements and Program, M. W. Reddan, Chairman.

Report of Committee on Scientific Work, Ralph K. Hollinshed, Chairman.

Report of Committee on Publication, Charles D. Bennett, Chairman.

Report of Corresponding Secretary.

Report of Recording Secretary.

Report of Executive Secretary.

Report of the Board of Trustees.

Report of Welfare Committee.

Report of Judicial Council.

Report of Committee on Finance and Budget.

Report of Committee on Honorary Membership.

Report of the Treasurer.

Report of Board of Medical Examiners.

Report of Committee on Standardization of the Degree of Disability in Industrial Eye Injuries, Elbert S. Sherman, Chairman.

Report of Committee on Public Hygiene and Sanitation, Gordon K. Dickinson, Chairman.

Report of Committee on Health Problem in Education, Clara K. Bartlett, Chairman.

Report of Committee on Standardization of Hospitals.

Report of Delegates to the American Medical Association and to State Societies.

Report of Special Committees.

Thursday, June 9, 1927, 3 P. M.

### Organization Meeting of the Woman's Auxiliary

Launching of the Woman's Auxiliary to the Medical Society of New Jersey will take place at a meeting in room "H" of the Hotel Haddon Hall, Atlantic City, Thursday, June 9, 1927, at 3 p. m. Dr. James S. Green, President of the Medical Society of New Jersey, will open the meeting and introduce Mrs. W. Wayne Babcock, of Philadelphia, Chairman of the Organization Committee of the Woman's Auxiliary to the American Medical Association, who will address the assemblage on "The Reasons for Forming Auxiliaries to Medical Societies".

This address will be followed by a short talk on "The Opportunities Knocking at the Doors of State and County Auxiliaries", by Dr. J. Bennett Morrison, Recording Secretary of the Medical Society of New Jersey.

The meeting will then be turned over to Mrs. Samuel Barbash, Chairman of the Organization Committee, who will report upon the work accomplished in organizing county branches, will present the list of delegates chosen by the county auxiliaries to attend this convention, and will introduce Mrs. A. Haines Lippincott, as the first President of the Woman's Auxiliary to the Medical Society of New Jersey, with authority to proceed with formal organization of such a body. Following presentation of the other temporary officers, appointed by President Green as previously mentioned, organization will proceed under the presidency of Mrs. Lippincott, as follows:

- (1) Roll call of delegates.
- (2) Consideration of proposed constitution and by-laws (Printed in March Journal, p. 190).
- (3) Election of permanent officers.
- (4) Report of delegates to the national auxiliary.
- (5) Discussion of work for recommendation to county auxiliaries.
- (6) Miscellaneous Business.

The above is a tentative program and it is understood that such part as may not be completed at the first session shall be carried over to an adjourned meeting to be held on Friday at such hour as the assembled delegates may decide.

Friday, June 10, 3 P. M.

A Bridge, Musicales and Tea will be arranged by a committee of the Ladies' Auxiliary of the Atlantic County Medical Society. The place of meeting will be announced later.

It is understood that Thursday evening and Friday evening entertainments in Vernon Room are for the members and ladies.

Coupon books will be issued to the ladies, as in the past, entitling them to rolling chair rides, admission to the piers, hygiea pool, etc.

The Committee on Program and Arrangements will gladly arrange for sailing parties, sightseeing trips, or golf privileges at the nearby country clubs, for groups who may desire such diversion. See Dr. W. D. Olmstead, at the Registration Desk.

### Program of General Entertainment

Thursday, June 9, 8.15 P. M., in Vernon Room

- (1) Motion Picture—An interesting educational film.
- (2) Elmer Ransom—Magician Extraordinary.
- (3) Major Edward Jerome Rice—Humorist.

Friday, June 10, 9 P. M., in Vernon Room

A Dance and Frolic from 9 p. m. until midnight. Entertainment features to be introduced between dance numbers by the following artists:

(1) The Wood Sisters, in a delightful dancing act that will please; these charming dancers have been featured in several Broadway successes.

(2) Joe (Rubberface) Gallagher, comedian.

(3) Miss Rhoda Griscom, a solo dancer who captivates her audiences always.

Dance music will be rendered by "Vernon Room Serenaders", a 7-piece orchestra of exceptional merit.

A worth-while "Attendance Prize" will be given; every lady arriving between 8:45 and 9:15 p. m. will receive a number at the door, and the one holding the lucky number will be awarded the attendance prize.

Prizes will be awarded for "Lucky Number Dances", "Moonlight Waltz", and other features to be announced.

Members will please note that our evening entertainments are planned as social entertainments, pure and simple, and no business or scientific paper or discussion will be permitted to intrude.

### SCIENTIFIC PROGRAM

Thursday, June 9, 1927, 2 P. M.

#### Symposium on Syphilis

Overlooked Clues to the Diagnosis of Syphilis Dependent on Physical Examination,

John H. Stokes, Philadelphia, Pa.

Abstract.—The following points are emphasized and amplified: While syphilis is disappearing into the invisibility of a symptomless latency under some of the inadequacies of modern treatment, there are still many clues to the disease available to the practitioner who makes thorough examinations. In certain aspects of syphilis these clues exceed in importance the blood Wassermann test. Physical diagnosis is at its best in late syphilis and is losing ground in the diagnosis of early syphilis, where it has been replaced by the darkfield and the Kahn and Wassermann tests. Among the interesting findings in latent syphilis may be included low gastric acidity in young people. The presence of the palpable liver and spleen often overlooked, the tender spot of periostitis over one of the accessible long bones, the general lymphadenopathy, gumma of the lymph-nodes, and leukoplakia likewise furnish useful clues. In the differential diagnosis of isolated late cutaneous syphilids, arciform configuration, induration and indolence are paramount. Cardiovascular syphilis, physical signs because they are the earliest manifestations, are *ipso facto* the most important. Much neurosyphilis goes unrecognized because the practitioner is unfamiliar with the comparatively simple tests which elicit evidence of late involvement. On the other hand the true prevention of neurosyphilis calls for full utilization of laboratory aids during the period of latency.

#### Treatment of Early Syphilis.

Henry B. Decker, Camden, N. J.

Abstract.—A patient with syphilis in its primary or secondary stage, in most instances, can be made non-infectious and cured by proper treatment. The physician should have a clear conception of his responsibility to the community and be willing to spend time instructing the patient. He should select one of the arsphenamin



group of drugs to control the infectious lesions, follow this with a course of mercury, and repeat the course of arsenical and mercury until sufficient treatment is given. The cure should be determined by repeated negative serologic and physical findings over a period of one year after cessation of treatment.

#### Treatment of Late Syphilis,

E. D. Newman, Newark, N. J.

Abstract.—Dependent upon: (A) Did the case receive any treatment whatsoever at the time of the initial or secondary period? (B) Was there insufficient treatment during the early periods? Case reports. Drugs used. Cautious use of arsphenamin in the aged, in cardiac, renal and hepatic cases. When not to use the arsphenamins. Review of the literature, and personal communications in reply to a questionnaire.

#### Cardiac Syphilis—Syphilitic Aortitis,

Harrison S. Martland, Newark, N. J.

Abstract.—Pathology: Luetic aortitis and its differentiation from the atherosclerotic process; position of the disease in the aorta; latent types of; enlargement of the heart in; dangers of, (a) formation of aneurism, (b) production of aortic regurgitation, (c) obstruction of coronary orifices. Symptomatology: Symptoms due to presence of aneurism, of aortic regurgitation or lesions producing angina; time of appearance after original infection. Value of physical signs (importance of good old fashioned percussion, etc.). X-ray evidence and electrocardiograms in diagnosis. Prognosis: Length of life after symptoms appear; mortality and morbidity; frequent cause of sudden death, medicolegal aspects. Treatment: Dangers of intensive treatment. Do we prolong life or ameliorate symptoms by treatment?

#### Treatment of Cerebral Syphilis by Malaria,

Henry A. Cotton, Trenton, N. J.

Abstract.—Steady progress in the treatment of paresis since the discovery of treponema pallida in brain of paretics. Moore and Noguchi, 1913. Swift and Ellis treatment of salvarsanized serum by intraspinal injection, published in 1912. Résumé of the first work in insane hospitals carried out at State Hospital, Trenton, 1913. Modification of Swift-Ellis method by Ogilvie. Wadner method intracranial subdural administration. Intraventricular administration, Hammond and Sharpe. Bichlorate of mercury least effective. Results of treatment. Triarsenide was heralded as the ideal treatment, but later results did not substantiate early opinion. In 1917, Wagner Jauregg inoculated paretic patients with malarial parasites. Results in 300 cases show increased success. Hyperpyrexia probably destructive to spirochetes. Recent work of M. M. Kunde by antityphoid vaccine in increasing doses as successful as the malaria. Recently Wilhelm Sagel used killed cultures of spirochetes for inoculations. Extensive literature on subject. Dangers minimized.

Friday, June 10, 1927, 9.30 A. M.

#### Symposium on Intravenous Therapy

Indications and Contraindications of the Serum Treatment of Disease by Intravenous Injections.  
G. T. Spencer, Elizabeth, N. J.

The Principles of Intravenous Medication in Biologic and Chemotherapy,

John A. Kolmer, Philadelphia, Pa.

#### The Treatment of Pneumonia with Pneumococcus Antibody Solution,

F. M. Huntoon, Philadelphia, Pa.

Abstract.—Pneumonia is primarily a local disease with generalized symptoms due to toxemia and to the presence of bacteria in the blood stream. When the bacteria in the blood stream reach any considerable amount, the disease becomes generalized with a bacteremia or septicemia. Statistics show that the presence of such a blood condition indicates a high death rate (50%). The specific treatments of pneumonia are directed at this feature. Both experimental and clinical work show that in the pneumococcus pneumonias this blood infection can be controlled by early administration of specific substances such as anti-sera or the pneumococcus antibody solution. This is an application of nature's own method of combating the disease. Results in early cases in Type I infections show as low as 8.9% mortality. Very early treatment in the first 24 hours may result in abortion of the disease. Results with other specific treatments, such as the diphtheria antitoxin and anti-meningitis serum show that results are always inversely proportional to the day of the disease the treatment is started and this is also true of pneumonias. Early treatment cannot be too strongly emphasized. Adequate amounts must also be used and this amount depends upon each individual case. The intravenous route is the method of choice. Used properly, the pneumococcus antibody solution affords a means of shortening the disease, turning a severe illness into a mild one and reducing the mortality rate. This can be accomplished with no dangers from anaphylaxis and with no serum sickness.

#### Concerning Dye Therapy of Acute Infections,

Robert A. Kilduffe, Atlantic City, N. J.

Abstract.—The principles and rationale underlying the treatment of acute infections by intravenous dye therapy are discussed and the chemopathology of these agents is emphasized. Not only the bactericidal but also the bacteriostatic properties of these dyes must be considered in their application to the treatment of disease. There is need for a thorough appreciation of the mechanism involved in this method of treatment and for a less arbitrary amount and frequency of administration. A plan is proposed for this purpose and a scheme evolved whereby the therapeutic use of dyes may become less empirical and haphazard.

#### Intravenous Nonspecific Therapy,

John W. Gray, Newark, N. J.

Abstract.—Indications and contraindications for drugs, dyes, saline, glucose, acacia and transfusions. Analysis of 400 transfusions will furnish data for discussion.

Friday, June 10, 1927, 12 Noon

#### Presidential Address,

Dr. James S. Green, Elizabeth, N. J.

Friday, June 10, 1927, 2 P. M.

Report of Nominating Committee and Election of Officers. (No other business).

2.30 P. M.

#### Pernicious Anemia,

Frederick M. Allen, Morristown, N. J.

**Abstract.**—In a previous publication we outlined our early treatment of pernicious and other severe anemias on a metabolic basis. These first results were encouraging but have been greatly improved since the introduction of larger quantities of liver in the diet. It seems to be now reasonably well established that pernicious and some other primary anemias are actually to be classed among the metabolic diseases. As in so many other of these diseases, the original cause is probably an infection or intoxication. The further progress to a fatal end seems to be due to lack of some specific substance or vitamine. Treatment consists in removal of all discoverable infectious foci and in a diet designed to supply the deficient substance and otherwise to favor the formation or preservation of new blood cells. Under this metabolic treatment, the prognosis seems to be excellent in practically all cases not complicated by advanced nerve degenerations.

**The Modern Approach to Diseases of the Digestive Tract,**

Martin E. Rehfuess, Philadelphia, Pa.

**Abstract.**—Modern methods of examination. Importance of the carefully applied history. What the general practitioner can determine on physical examination. How much the general practitioner can do in the study of the stomach tube. Duodenal intubation. Examination of the bowel movement. The indication for more complete study of each of the organs by controlled x-ray examination. Plan of treatment based on subjective and objective findings. The rôle of the general practitioner in treatment of the chronic diseases of the digestive tract.

**Operative Treatment of Duodenal Ulcer,**

Frank J. McLoughlin, Jersey City, N. J.

**Abstract.**—Will review normal gastric physiology and changes in function resulting from the presence of ulcer. The various operations, excision, pyloroplasty, gastro-enterostomy and partial gastrectomy, will be discussed from the standpoint of how they correct the abnormal physiology and symptomatology. The indications, technic, mortality, causes of failure, and final results as indicated by the latest statistics, will be reviewed in each instance.

**Better Anesthesia for Thyroidectomies, Illustrated by Motion Pictures and Charts,**

George P. Pitkin, Teaneck, N. J.

**Abstract.**—Showing an anesthesia that is absolutely devoid of shock or other after effects, one that never has to be helped out with inhalation narcosis. It is not dreaded by the patient, who is at all times conscious and able to cooperate. The technic is relatively simple and easily mastered with very little practice.

**Saturday, June 11, 1927, 10 A. M.**

#### Atlantic City Hospital

The scientific program for this morning is being arranged by the Staff of the Atlantic City Hospital and will be entirely clinical in character. The several departments of the hospital will carry on coincident demonstrations, and members will be able to make choice of and attend such clinics as interest them individually. Thus, there will be special clinics in surgery, gynecology, genito-urinary diseases, ophthalmology and otorhinology. Medical clinics will

perhaps pay special attention to diabetes and to cardiac cases. Laboratory work will be demonstrated by the director of that department.

**Saturday, June 11, 1927, 2 P. M.**

#### House of Delegates

Report of Trustees.  
Unfinished Business.  
Adjournment.

## Woman's Auxiliary

### STATE SOCIETY AUXILIARY

As recorded in the March and April numbers of the Journal, plans for organization of a Woman's Auxiliary to the Medical Society of New Jersey are developing rapidly and satisfactorily. At the present moment, 13 counties have organized and 5 others have engaged to consider the matter during the month of May; the remaining 3 may come into line before the June session of the State Society, at which time an amalgamation of the county branches into a state auxiliary is scheduled to take place.

In view of the fact that the American Medical Association will be meeting at Washington in May, and the Woman's Auxiliary to the National Association will hold its annual convention at the same place and time, and because we desire to have New Jersey represented at that convention, it became necessary to make special arrangement for selection of delegates from this state. Accordingly, anticipating the actual formation of a state auxiliary when county delegates shall gather in convention in June, the President of the Medical Society of New Jersey, Dr. James S. Green, at the request of the Organization Committee, decreed the formation of a skeletal organization and appointed the following temporary officers to serve until the state auxiliary shall have become formally organized: President, Mrs. A. Haines Lippincott, of Camden; First Vice-President, Mrs. Walt Conaway, Atlantic City; Second Vice-President, Mrs. E. R. Mulford, Burlington; Recording Secretary, Mrs. A. L. Stillwell, Somerville, and Treasurer, Mrs. James Hunter, Jr., Westville.

Delegates to the Woman's Auxiliary of the American Medical Association: Mrs. Lippincott, Mrs. Stillwell and Mrs. Barbash.

An explanation of the above action was sent to the secretary of the national auxiliary, was accepted, and the credentials of these delegates have been filed, so that New Jersey may properly participate in the proceedings of this national body on a par with the representatives of other states. It now remains only to complete our state organization in June, to formally elect officers for the ensuing year, and to proceed with development of the work that lies open to such an organization.

Plans for the state convention have been approved by the State Society officers and the Committee of Arrangements has provided for a meeting place and for entertainment of as many ladies as can be induced to attend this gathering. It is hoped that every member of the State Medical Society will attend this annual convention, and that every member will be accompanied by his wife, mother, sister or daughter—or by all of these relatives. Or, perhaps, we may better express it another way and say that we hope the interest of women in forming the auxiliary will be so strong that the result will be a large at-



tendance of women bringing their husbands, sons or brothers to take part in the medical meetings. It is already a noticeable fact that in the counties where auxiliaries have been constituted, the county medical society is experiencing an increased attendance. Let us extend that to the State Society and, even if no greater result should be attained, the formation of an auxiliary will have been justified.

In constructing the auxiliaries we have accepted the same basis of representation as governs the parent medical organization. For instance, when a physician becomes a member of his county medical society, he becomes also, by virtue of that fact, a member of the State Medical Society and of the American Medical Association. For convenience in the transaction of business in the larger groups, the county society elects delegates to the State Society, and the latter body, in turn, elects delegates to the national association. Every member of every county society throughout the United States is entitled to attend all the general meetings of county, state or national societies, and is entitled to all the rights and privileges of membership in these several organizations, save the right to vote in the House of Delegates of state or national society, in which bodies he is indirectly represented by, and votes through the medium of the delegate from his locality. In like manner, membership in the woman's auxiliary to any county medical society carries coincident membership in the state and national auxiliaries, with all of their associated prerogatives save that business of the state and national bodies is conducted by the votes of specified delegates.

#### COUNTY SOCIETY AUXILIARIES.

The Cumberland County Medical Society having invited the wives of its members to join them at dinner at the Cumberland Hotel, Bridgeton, Tuesday, April 5, at 4.30 p. m., following a meeting at the same place at 2.30 p. m., for the purpose of organizing an auxiliary, about 20 women gathered in the mezzanine reception room to hear Dr. Reik explain the purposes of an auxiliary. After adoption of the constitution and by-laws as presented, and adoption of a resolution making the wives of all members of the county medical society charter members of the associated auxiliary, the following officers were duly elected: President, Mrs. M. F. Sewall, of Bridgeton; First Vice-President, Mrs. C. H. Wilson, of Vineland; Second Vice-President, Mrs. L. J. Kauffman, of Millville; Secretary, Mrs. Sherman Garrison, of Cedarville, and Treasurer, Mrs. E. C. Lyon, of Bridgeton.

By special vote, the president was authorized to appoint 2 delegates for association with herself in representing the county auxiliary at the State Society meeting.

It was unanimously decided to hold the next meeting at the same time and place as the next regular meeting of the County Medical Society.

Cape May County organized a Woman's Auxiliary at a meeting held Tuesday, April 5, at 11 a. m., in the Hotel Strand, Ocean City, N. J. Mrs. Samuel Barbash, of Atlantic City, addressed the gathering and served as temporary presiding officer while organization was being effected.

The permanent officers elected were; President, Mrs. George F. Dandois, of Wildwood; First Vice-President, Mrs. F. R. Hughes, of Cape May; Second Vice-President, Mrs. Herschel Pettit, Ocean City; Recording Secretary, Mrs. A. C. Crowe, Ocean City; Corresponding Secretary, Mrs. M. V. Smith,

Ocean City; Treasurer, Mrs. Oscar Ziegler, Wildwood; Delegates to State Society Auxiliary, Mrs. Dandois, Mrs. Eugene Way and Mrs. Frank R. Hughes.

A Woman's Auxiliary to the Burlington County Medical Society was organized at a special meeting held in the Y. W. C. A. at Burlington on the afternoon of April 13.

Dr. Reik addressed the meeting, explaining the purposes of this movement and relating what had been done in other counties. Following the usual procedure of organization, the following officers were elected: President, Mrs. Daniel Remer, Mt. Holly; First Vice-President, Mrs. Roscius Downs, Riverside; Second Vice-President, Mrs. Benjamin K. Brick, Marlton; Secretary, Dr. Elizabeth Lore, Moorestown; Treasurer, Mrs. Harry L. Rogers, Riverton.

The Union County Medical Society having invited the wives of all members to meet at the Muhlenberg Hospital, Plainfield, at 9 p. m., Wednesday, April 13, to form a Woman's Auxiliary Society, the presence of the following named women was noted:

Mrs. George L. Orton, Mrs. Lansing Y. Lipincott, Mrs. Harold F. Johnson, Mrs. W. Kurtz, Mrs. L. H. Leggett Jr., Mrs. P. DuBois Bunting, Mrs. Charles H. Schlichter, Mrs. Stanton H. Davis, Mrs. Horace R. Livingood, Mrs. Ellis Campus, Mrs. Shewin L. Haseltine, Mrs. Raphael Yood, Mrs. K. M. Nittoli, Mrs. M. A. Shangle, Mrs. S. Franklin Wade; Mrs. Frank H. Warneke, Mrs. George A. Seymour, Mrs. Ginsan, Mrs. H. D. Corbusier, Mrs. E. W. Lance, Mrs. Rowland P. Blythe, Mrs. A. E. Oakes, Mrs. W. E. Boozan, Mrs. G. Knauer, Mrs. Russell A. Shirrefs, Mrs. Mae Robinson, Mrs. W. F. Phelan, Mrs. G. S. Laird, Mrs. H. V. Hubbard, Mrs. Dennis McIlhinney, and Mrs. Fred A. Kinch.

Preliminary organization steps having already been taken, a formal ratification was quickly effected after a short explanatory talk by Dr. Reik.

Election of officers resulted as follows: President, Mrs. George L. Orton; First Vice-President, Mrs. Fred A. Kinch; Second Vice-President, Mrs. P. DuBois Bunting; Secretary, Mrs. H. V. Hubbard; Treasurer, Mrs. Dennis McIlhinney. Delegates to the State Auxiliary, Mrs. Orton, Mrs. Shirrefs, and Mrs. Hubbard.

An auxiliary to the Somerset County Medical Society was organized by Mrs. Barbash at a meeting held in the Science Lecture Room of the High School at Somerville, Thursday, April 14. The list of officers chosen were:

President, Mrs. D. S. Renner, of Skillman; First Vice-President, Mrs. David F. Weeks, Skillman; Second Vice-President, Mrs. E. G. Brittain, Bound Brook; Secretary, Mrs. Lancelot Ely, Somerville; Corresponding Secretary, Mrs. F. L. Field, Far Hills; Treasurer, Mrs. J. H. Cooper, East Millstone; Board of Managers, Mrs. C. R. Kay, Peapack, and Mrs. A. L. Stillwell, Somerville; Delegates to State Auxiliary, Mrs. R. F. Hegeman, Somerville, and Mrs. J. H. Cooper.

The Ladies' Auxiliary of the Gloucester County Medical Society was invited as guests to the County Medical Society, and organized for the coming year with the following officers:

President, Mrs. James Hunter, Westville; First Vice-President, Mrs. Luther M. Halsey, Williamstown; Second Vice-President, Mrs. Chester I. Ulmer, Gibbstown; Secretary, Mrs. Harry L. Sickel, Woodbury; Treasurer, Mrs. David Brewer, Woodbury. Delegates to the State of New Jersey Society meeting, Mrs. Samuel F. Ashcraft Mullica Hill and Mrs. Ralph K. Hollinshed, Westville. Alternates, Mrs. Chas. F. Fisler, Clayton, and Mrs. J. Harris Underwood, Woodbury.

## County Society Reports

### ATLANTIC COUNTY

Harold S. Davidson, M. D., Reporter.

The regular monthly meeting of the Atlantic County Medical Society was called to order by the President Charles B. Kaighn, on Friday evening, April 8, 1927, at 8:30 o'clock, at the Hotel Chalfonte, Atlantic City, N. J.

There was a motion made by Dr. C. C. Charlton to invite the American Academy of Ophthalmology and Otolaryngology to meet in Atlantic City in the Fall of 1928. This motion was carried.

Dr. Frederick M. Allen, Director of the Physiatric Institute, Morristown, N. J., presented the following paper: "Some Recent Advances in Treatment of Metabolic Disorders".

Great advances have been made in the treatment of metabolic disorders, of which cardiorenal are the first group to be considered. This group is divided into 2 classes: (1) Those showing nitrogenous products. This group is toxic and includes uremia. Excretion of nitrogen is a normal function of the kidney and, if the kidneys are not diseased, nitrogen is disposed of, otherwise it cannot be excreted. The treatment for this group is the restriction of protein in the diet, and it is very feasible to give a diet containing 40 or 50 gm. of protein. Must not restrict permanently below 20 gm. Patients can be kept well on low protein diets where otherwise they would become uremic. Drugs do not help to eliminate nitrogen. If there is a mechanical cause, such as a bad heart, drugs do help. Sweating and purging do not help much; the patient will die about as soon anyway. (2) Those showing retention of water or salt. This group is mechanical and includes pseudo-uremia or eclampsia.

**Edema.**—Edema may be cardiac, renal or vascular. Dominant treatment is the restriction of salt regardless of the type of edema. We cannot drive the kidneys to excrete, so must cut down the work of the organ. Drugs will play out but salt-free diet can be used indefinitely. The diet is the main thing. High protein feeding is not of much use to eliminate water. Producing acidosis by ammonia or calcium chlorid does help to eliminate water and salt. It is bad practice to produce an acidosis which may injure the kidneys. New diuretics such as novasural and salergen should only be used where nitrogen retention is not high. They will eliminate salt and water. Edema tends to block circulation, and circulation improves when edema is eliminated. Diet is first and then diuretics, such as digitalis, caffeine, thocin, novasural and salergen. Then by instituting a salt-free diet, patients can be kept free of edema.

**Hypertension.**—Drugs are only useful in emergencies. They do not reach the fundamental process. Erasing blood pressure down by nitrites does not help the underlying cause. Only in threatened apoplexy or angina are the nitrites useful. Bleeding is the best method for lowering blood pressure. Spinal puncture is not good practice. The proteins have nothing to do with blood pressure. Cutting off meats in hypertension is only a tradition and, if the nitrogen retention is normal, there is no reason for restricting proteins, but salt must be restricted. Drugs do not help. The main difficulty is the accuracy of the diet. Give a diet free of salt and still eatable; that is difficult. In order to control the

blood pressure one must have less than 0.5 gm. urinary chlorides in 24 hours.

**Liver diseases.**—Cirrhosis of the liver was formerly hopeless. Still not much can be done, but diet is the greatest factor. The liver deals with proteins and, in order to help the liver, give the lowest possible protein diet. Fat is hard for the liver to dispose of, so fats must be eliminated. Carbohydrates protect the liver; glycogen seems to protect the liver, so the best diet is one rich in starch and sugar. Early, there is congestion and edema of the liver and late there is ascites, so all the way through salt-free diet is indicated. The salt-free diet makes it difficult for fluids to re-accumulate. It is a hard diet to give, being practically straight carbohydrate.

**Anemia.**—The prognosis has been transformed in anemia. High protein diet is indicated, giving one-half to one pound of liver daily. Other details of the diet are unimportant, but where the liver is involved diet should also be high in carbohydrates. These cases even remain free of relapse on high protein diet, if focal infections are eliminated. It is very likely that pernicious anemia is due to a deficiency of vitamin E.

**Diabetes.**—The treatment here is a combination of diet and insulin. High fat diet in diabetes was only a fad and is passing out. The dosage of insulin is not materially changed whether fat or carbohydrate make up the calories. The most important factor is the total of calories which determine the body weight. As you reduce the weight the tolerance goes up. Diet should always be weighed, but one must guard against complexities. The basal metabolism is not of use in diabetes. One can give a reasonable ratio of carbohydrate and protein and enough fat to make up the balance of the diet and still not produce an acidosis. Insulin does not cure diabetes, but supplies a missing substance, and a diabetic can live a full life with it. Insulin has not reduced the diabetic death rate. This means that it is either used wrongly or with an improper diet or in insufficient dosage; the way it is used is at fault. Hypoglycemia is never fatal; acidosis is the great cause of diabetic deaths. Insulin is not efficacious by mouth. There is a remedy, to be announced shortly by this Clinic, which is efficacious by mouth. The German synthalin is efficacious by mouth, but is very toxic.

Dr. John F. Erdman, of New York, Professor of Surgery, Columbia University, College of Physicians and Surgeons, presented a paper on "Intestinal Obstruction", which will appear later in the Journal.

### Atlantic City Hospital Staff

Joseph H. Marcus, M. D., Secretary.

The monthly meeting of the Atlantic City Hospital General Staff was held in the Nurses' Auditorium on April 15, 1927, being called to order by Dr. Wm. J. C. Carrington, the President. The following program was presented:

Report of Gynecologic Service, Dr. Wm. J. C. Carrington; Report of Urologic Service, Drs. C. H. de T. Shivers and Charles L. Bossart; Report of Diabetic Clinic, Dr. Hilton S. Read.

Dr. Hilton S. Read outlined his procedure, both dietetic and insulin, in the treatment of diabetic patients in the out-patient department. These patients at the present time are all under control and responding to treatment.

Dr. Lewis Rosenberg, Resident Physician, reported a case of "Atresia of the Vagina" from



the service of Dr. Carrington. Patient was 14 years of age, white, with chief pain in the lower left abdominal quadrant, accompanied by intermittent inability to void. General health had been fairly good, attacks of complete anuria and although she drank plenty of water was unable to pass any urine for periods of 2 days. Hot applications to the abdomen relieved this condition. Accompanying these attacks there was severe pain in the lower quadrant and disappearance of the pain was co-incident with commencement of voiding. The patient has never menstruated. The operation performed was a posterior colpotomy for an existing atresia of the vagina; patient made an uneventful recovery.

Dr. Levi Walker, Resident Physician, reported a "Case of General Carcinomatosis" in a female patient, 60 years of age, whose marked symptoms and physical signs were pronounced cachexia and abdominal tumor. Indefinite mass was felt in the lower abdomen and was fluctuating. At operation, a large carcinomatous mass consisting of soft tissue was found in the lower abdomen and involved the uterus and right ovarian region. Laboratory diagnosis confirmed the clinical findings. Dr. W. E. Darnall discussed a similar case in a patient upon whom he had operated.

Dr. Carrington reported his gynecologic service comprising a period of 4 months, December, 1926, to March, 1927. In all there were 97 admissions and 90 operations. As a check-up on operative diagnosis, Dr. Carrington inaugurated the following procedure: gynecologic blanks were provided for the examiners which included the resident gynecologist, the chief resident physician, the two out-patient gynecologists, the associate in gynecology and the chief of service; a total of 108 examinations were made and the findings were recorded by each physician before the patient underwent operation. This novel check-up system resulted in a gratifyingly high percentage of correct interpretations; average of 80% correct diagnoses were made. As evidence that the world is improving in its moral attitude, the spermatozoa far out-stripped the gonococcus in referring work to the department. There were 2 cesarian sections, both done through a short high incision with delivery of the child before delivery of the uterus. In neither case was there any complication. One was performed for placenta previa and the other for massive venereal warts. Abortions totaled 25; of which 3 were complete and 1 was sent in as incomplete but proved to be threatened only. In 1 case of pulmonary tuberculosis a therapeutic abortion was performed. A number were cases of retained secundines. The convalescence of 14 were afebrile, 6 ran a temperature of 100° or less, and 2 had high fever. The latter two were admitted with extreme anemia and free bleeding with a hemoglobin of 23% and 25%; negative blood cultures were obtained in both and recovery was complete in 2 weeks. In 17 abortion cases, 1 had a positive Wassermann. The hemoglobin average was 68% and the 3 cases that had high temperature had hemoglobin percentages of 20, 23 and 35 upon admission. Three cases of ectopic pregnancy were admitted; 1 was a ruptured type, the remaining 2, unruptured. Four cases of carcinoma were encountered; 1 round cell infiltration, 2 squamous cell type, and 1 adenocarcinoma. Dr. Carrington applied the sedimentation test to 22 cases on his service in an attempt to determine the toxicity of disease processes. The results obtained are tabulated to show the diagnosis, temperature, leukocytes, polymorpho-

nuclear leukocytes, and the result of the sedimentation test.

Sedimentation Test.

Diagnosis	Temp. at time of test	W.B.C.	Poly. percent- age	Sedi- menta- tion
Sup. Intraligamentary cyst	99.2	26,800	68	10.4
Large ovarian cyst and ventral hernia. Pelvic peritonitis	98.2	22,200	71	36.4
Streptococcus pelvic peritonitis and hydrosalpinx	99.1	21,200	89	20.5
Pyosalpinx	99.	20,700	60	20.4
Incomplete abortion with sapremia	102.3	20,000	82	67.
Incomplete abortion	99.	18,700	71	9.4
Cervicitis, cystocele and rectocele	97.4	12,700	81	42.
Incomplete abortion with sapremia	101.	12,600	68	60.
Retrodisplacement	98.	11,600	60	1.8
Pelvic varicosites and adherent appendix	98.	11,000	50	21.3
Ovarian cyst	98.1	10,250	65	4.1
Retrodisplacement with adhesions	98.3	9,650	60	3.9
Carcinomatous polyp	97.3	9,600	59	12.3
Carcinoma of cervix	97.2	9,400	58	3.9
Ruptured gangrenous appendix	99.2	9,200	75	20.7
Ovarian cyst	97.4	9,100	62	4.4
Incomplete abortion	98.1	8,750	56	6.
Bilateral pyosalpinx	98.4	7,950	70	9.5
Pyosalpinx and pelvic peritonitis	98.2	7,150	51	22.5
Salpingitis and cystic ovary	98.4	7,050	66	9.
Fibrosis and salpingitis	98.2	6,350	56	14.4
Fibrosis (Hb 35%) R. B. C., 2,700,000	99.2	6,050	52	45.8

It will be noted that the 22 cases are arranged according to the leukocyte count. The first 11 cases show an average of white cell counts of 17,000, an average polymorphonuclear percentage of 73.2% and average erythrocyte sedimentation in one hour at 26.5%. The last 11 show an average of 8200 leukocytes, 56.7% polymorphonuclears, and an average sedimentation of 13.8%. It is evident that the test is of some value. In one instance the test showed 45.8%, and there was no inflammation, but there was advanced anemia. It is claimed that in anemic blood the test is almost valueless. In another case, one of appendiceal abscess, the test proved of greater accuracy than either the leukocyte or the differential count.

Dr. Carrington extended his appreciative thanks for the aid rendered by his associate, Dr. Uzzell, the out-patient gynecologists, Drs. Johnson and Brown, the Chief Resident Dr. Cheeves, and the interns on his service; also lauded the executive leadership of the Superintendent, Miss Nellie McGurran, and the splendid coöperation received in the operating room and the wards, under the supervision of Miss E. Casperson, Superintendent of Nurses.

Dr. Carrington outlined the results of follow-up system upon his patients operated upon one year ago. The results by this method of letter communications were not very satisfactory and he suggested a more intensive follow-up system which it is hoped will be more successful in obtaining results.

Dr. Carrington's paper was discussed by Dr.

Robert A. Kilduffe, Director of the Laboratories.  
Report of a case of twin ectopic pregnancy by  
Dr. W. G. Cheeves.

Married woman, aged 36, with history of:  
Vaginal bleeding since December, 1926, very profuse for past 5 weeks; bleeding following coitus in October; weakness and dyspnea; pain in rectum on defecation; no abortions; last period November, 1926; menses regular.

Examinations.—Head, neck and chest negative. Abdomen—tenderness both lower quadrants. Vagina—mass size of small orange of which seems attached to wall of uterus. Cervix soft.

Pre-operative Diagnosis.—(1) Tubo-Ovarian Abscess, left side.. (2) Fibroid posterior wall of uterus. (3) Ectopic (but not strongly).

Operations.—Showed tube and ovary in a mass size of orange held by adhesions in the cul-de-sac. The adhesions were easily released. Left tube and ovary removed. The tube showed a twin pregnancy. A small fibroid on posterior wall of uterus was removed.

Post-operative Diagnosis.—(1) Twin ectopic gestation (left tube). (2) Fibroid posterior wall of uterus.

Dr. Charles L. Bossert, Associate in Urology, gave a brief resumé of the urologic procedures instituted at both the Municipal and at the Atlantic City Hospital. In presenting his statistics of the conditions encountered the following were enumerated:

Acute anterior urethritis	60
Acute anteroposterior	71
Chronic anterior	15
Chronic anteroposterior	32
Chronic posterior urethritis	102
Chronic prostatitis	102
Acute prostatitis	15
Acute epididymitis	36
(six under treatment)	
Strictures, small caliber	18
Gon. arthritis	4
Gon. conjunctivitis	1
Cystitis	1
Vulvovaginitis (women)	16
Vulvovaginitis (children)	11

Total number of cases 338 and the number of treatments given 2561.

Dr. T. H. deT. Shivers, Chief of the Urologic Department, outlined his routine procedures in the treatment of gonorrhea and lues. He emphasized the small number of complications in treatment stating that such was due to extreme care in handling posterior urethritis and that most complications were due to the manner of handling this condition, such as vigorous massage of the prostate and the passing of over-size sounds. Cystoscopic findings were related and he urged more coöperation in cystoscopic examinations. Roentgenographic plates were demonstrated by Drs. William Westcott and Charles B. Kaighn, upon cases reported by Dr. Shivers, among which were presented double ureter with double pelvis of the kidney, ectopic kidney and a case of tuberculosis of the kidney operated on by Dr. Theodore Senseman. The chief complaint in this last condition was severe intermittent abdominal pain in a male aged 48 years. Dr. Shivers emphasized the relationship of this type of abdominal pain to tuberculosis of the kidney. The chief finding was a large amount of pus in the urine obtained by catheterization of the ureter. There was also a stricture in the lower portion. Inoculation of a guinea-pig produced tuberculosis.

Dr. Shivers quoted the total number of cases

as 82, with 33 operative procedures accompanied by 1 death. The operations included those for acute epididymitis, varicocele, prostatitis, orchitis, hydrocele, inguinal adenitis, anterior stricture, perineal fistula with abscess. One case presented was that of an adult male with a prostatic abscess and an accompanying pneumonia; operation was instituted at a time when the patient had a temperature of 105°; drainage of the abscess was followed by recovery.

Discussion by Dr. Clarence L. Andrews, who complimented the chiefs for the excellent method in presenting their service reports and clarity and briefness of their discussions.

Dr. William Westcott stressed the importance of keeping in mind the relationship of hydronephrosis as being responsible for severe abdominal pain, which not infrequently is due to a kink in the ureter.

### BERGEN COUNTY

Spencer T. Snedecor, M. D., Reporter.

As the guest of Dr. Joseph Morrow and the Board of Managers of Bergen Pines, the county institution for contagious diseases, the Bergen County Society held its regular monthly meeting April 12. Over 80 members and guests were present.

At the request of the Metropolitan Life Insurance Company their regulations to visiting nurses were read and approved.

A committee of 14 members to aid the formation of the Women's Auxiliary was appointed, with Dr. Frank C. McCormack, Chairman.

Dr. Joseph Morrow announced that the Board of Managers of Bergen Pines has authorized him to administer the Pasteur treatment for prevention of rabies to any indigent patients referred by the doctors or the Boards of Health.

Rabies was the topic of the evening's discussion. Dr. Edward B. Marsh, Secretary of the New York State Board of Health, covered the subject thoroughly. A few of the features emphasized were: (1) Increasing prevalence of the disease. (2) Its inevitable fatality. (3) Thorough cauterization by fuming nitric acid as the only safe antiseptic treatment. (4) New Semple method of 15 daily inoculations of equal strength of the killed virus. (5) Prevention, by destruction of stray dogs and inoculation of all licensed dogs.

Dr. Henry B. Costill, Director of New Jersey State Board of Health, emphasized the value of inoculating all dogs and pleaded that the doctors should back up legislative action to that effect. The hostile attitude of the S. P. C. A. toward these inoculations he could not explain; their leaders seem absolutely misguided or biased.

Dr. Harry Willard, President of the Ridgewood Board of Education spoke about the need of protecting ungarded school children by the methods that have been recommended.

A veterinary surgeon, Dr. J. B. Hopper, of Ridgewood, said that in the period during which inoculation of all dogs was compulsory in his town not a single case of rabies developed.

The meeting was concluded with moving pictures of the life of Pasteur.

### Medical Club of Hackensack

Spencer T. Snedecor, M. D., Historian.

A special meeting was held in the Hospital on April 1, to discuss the new attitude toward compensation cases that is being sponsored by the insurance companies in Hackensack. After discussion of the situation, a set of resolutions were



adopted and ordered presented to the Associated Staff of the hospital and to the insurance companies:

"Resolved, that the Medical Club of Hackensack desires to protest the action of the companies writing Compensation Insurance, in placing a physician in Hackensack to care for this work.

(1) We feel that this work had been competently handled in the past and that any inefficiency cannot be attributed to the doctors.

(2) There is no precedent in localities of similar size and number of insurance carriers.

(3) Without just cause, this work is being taken from the physicians, who have previously given their best efforts in the treatment of compensation cases.

(4) The existing state of affairs is detrimental financially to the local hospital, which needs full support in the community.

(5) The present medical incumbent is being given an unfair inroad into the general practice of all local men, in that our patients are forced, often against their will, to seek his services.

(6) We feel that such a radical step should not have been taken without consulting the local medical society, and, if it were inevitable, the appointment should have been offered to a local man.

We offer the following criticisms on previous handling of compensation cases, and suggestions for improvement:

(1) That carriers of compensation insurance exercise more care in promptly reporting accidents to the company.

(2) That the companies be more prompt in sending to the attending physician the initial and final report blanks. Many times neither is received until long after the case has been completed.

(3) That, if the initial report promptly rendered, indicates a case needing more than 10 to 14 days treatment, a representative of the company call on, or communicate with, the attending physician; often the demonstration, or explanation of a case at this time, will show the need of treatment which is questioned later, at a time when the treatment is completed, and the need for it cannot be justified.

(4) That a local physician be appointed, or employed by the Company to inspect all such cases and report on need for further treatment. It is often undesirable and impossible for patients to be sent to Paterson or Newark for examination.

(5) That local insurance agents be given more power to deal directly in compensation cases.

(6) That a greater effort be made to pay physician's claims promptly. Long delays, complaints against honest bills, and arbitrary reductions in amounts paid, have been the cause of much dissatisfaction.

(7) In cases of large concerns, with many accidents and therefore high rates, a suggestion might be the establishment of small clinics, under the care of a full time nurse. Many minor injuries, and many dressings subsequent to early medical attention would receive her care and result in smaller bills for medical services. In such cases the physician previously recommended by the insurance carriers to be employed formally. Several neighboring concerns might also employ the services of the same nurse. The value of such a clinic we feel is demonstrated at the United Piece Silk Dye Works at Lodi, N. J.

(8) Each insurance company might designate

a local physician, and an alternate when the first is not available, whose work has been satisfactory to them, to treat all cases for concerns carrying their insurance in the neighborhood, in the same manner as they appoint examiners for Life Insurance. If this were done both companies and carriers would be assured of full co-operation, for the men need not accept unless they are willing to do the work.

(9) The proper action on the part of physicians in cases that refuse suggested treatment, or fail to return for treatment should be clarified.

(10) The former practice of insurance carriers, of sending an injured man at some impossible hour from one doctor's office to another before one is located, is inefficient and needless. They should either call the approved physician to the office of the company, keeping the man there, or should notify the doctor's office that they are sending a patient, permitting the doctor to be located and to respond. In either event, much time, and needless suffering in unnecessary travelling would be obviated.

(11) Lastly, under present conditions, the members of the Medical Club express their refusal to coöperate, or assist in any way, in the handling of Compensation Cases'.

On April 6, the club journeyed to New York, dined and attended the meeting of the New York Electrotherapeutic Society at the new Academy of Medicine. Dr. F. B. Granger, of Harvard Medical School, who is also a member of the A. M. A. Council of Physical Therapy, spoke on the "Physical Therapy Department in the Hospital".

At the Swiss Chalet on April 20, they again had dinner and discussed in particular the problems of police examinations and the method of holding preschool clinics.

## BURLINGTON COUNTY

R. I. Downs, M. D., Reporter.

The regular meeting of the Burlington County Medical Society was held at the Union League, Philadelphia, on Wednesday, April 13, 1927, at 6.30 p. m. The members of the society were guests of Dr. Irving W. Hollingshead in memory of his father, Enoch Hollingshead, a former President of both the County and New Jersey State Medical Societies.

There were 52 members and guests present, the latter list including: Drs. L. W. Kennedy, W. Krusen, C. A. E. Codman, W. Roberts, J. T. Rugh, E. L. Eliason, F. L. Hartman, J. B. Carnett, L. C. Peter, S. M. Laws, C. L. Felt, W. S. Newcomet, E. A. Shumway, M. F. Percival, D. F. Bencer, A. C. Fewell, S. A. Wilkinson, Rudolph Eden, Mr. S. R. Matlack, Mr. W. C. Hancock, Mr. J. C. Barber, 3rd, Mr. McCulley, of Philadelphia, Dr. Philip Marvel, of Atlantic City, Drs. Paul McCray and Alex. MacAlister, of Camden.

We sat down to an excellent course dinner at a table strewn with numerous floral decorations, and were entertained by an orchestra throughout the repast. Following the dinner, Dr. B. K. Brick, our President, turned the meeting over to the Chairman of the Section on Surgery, Dr. Andrew M. Smith.

Dr. Alexander Marcy, Jr., addressed the society on the life of Dr. Enoch Hollingshead:

"Enoch Hollingshead, the subject of this brief sketch, was born in Medford, Burlington County, March 4, 1844, the son of Charles and Esther Haines Hollingshead, people of high standing in their community. He was educated in the public

schools of his native village and entered on the study of medicine under the careful guidance of Dr. A. E. Budd, of Mt. Holly, N. J. In 1865, he matriculated at the University of Pennsylvania, graduating therefrom in 1867, and soon began the practice of his chosen profession at Jacobstown, N. J. After 2 years there, he removed to New Egypt, and later to Pemberton, N. J., where he spent the balance of his life.

In 1868, Dr. Hollingshead joined the Burlington County Medical Society and served it either as President or Treasurer for a period of 34 years.

In 1870, he was married to Esther Stokes Woodward, of Pemberton Township, and the result of this union was a family of 3 sons and 1 daughter, our genial host being the oldest of this group.

In 1913, it was my privilege as well as pleasure to nominate him to the office of Third Vice-President of the New Jersey State Medical Society, to which office he was elected, and from which he advanced in time to the Presidency.

There is no honor open to the medical profession in New Jersey that appeals to one as does that of becoming President of the State Medical Society and this honor was enjoyed by Dr. Hollingshead to the full. In honoring him, the society honored itself, as Dr. Hollingshead was no ordinary man, being not only a good physician but a worthy citizen.

I remember him well as a member of the County and State Societies, where he was always keen and ready in debate, well abreast of the times, faithful to his duties, and rarely missed a meeting.

We do well to honor the memory of Dr. Hollingshead, and it is indeed a gracious thing for his son to have made this meeting possible."

Dr. Smith turned the meeting over to Dr. I. W. Hollingshead, the host of the evening, to preside over the remaining program.

Dr. Hollingshead said that he was pleased to have made this meeting possible, but he feared that his father had not instilled into his sons the amount of medical enthusiasm that he had himself. The speaker joined the Burlington County Society 32 years ago, and he named among the active members of that time, Drs. Gaunt, Taylor, Pugh, Hall, Shipps, Parsons, Melcher, Barrington, Prickett, Martin, Young, Newlin Stokes and Reeves. He felt that his associations with these men had been of benefit to him in later years.

Dr. Hollingshead then presented Dr. John Berton Carnett, who took for his subject, "Pseudo-appendicitis". Dr. Carnett cited one of his first cases. He removed the appendix of this girl to cure a localized pain. Later an ovary was removed for the same purpose. But the real cause, discovered later, was a lateral spinal curvature with 5-8 in. shortening of one leg.

There is a pain, simulating chronic appendicitis but caused from outside of the abdomen, which he calls intercostal neuralgia. This can be diagnosed only by palpation. Here pain is elicited on palpation of both a relaxed abdomen and one made rigid. Tenderness of the posterior abdominal wall, called chronic strain of the lumbar spine or of sacio-iliac joints, is often associated with pain over McBurney's point. Acute cases following infections of the respiratory tract, rhinitis or bronchitis, often produce a referred pain simulating appendicitis. In concluding, Dr. Carnett thought we would believe one of two theories, i. e. that no one ever has chronic appendicitis; or, that everyone develops chronic appendicitis as they grow older due to tissue changes of age.

During discussion of the subject, Dr. E. L. Eliason, of Philadelphia, said that nurses of the University Hospital, placed on night duty, sometimes show symptoms of chronic appendicitis due to broken daily routine, but the symptoms disappear when they return to day duty.

Dr. J. W. Kennedy, of Price Hospital, Philadelphia, does not like the classification of operative and nonoperative appendicitis; when in doubt, he favors early operation, especially in acute cases.

Dr. Paul Mecray said that the longer he lives the more he feels that there is no such condition as chronic appendicitis.

Dr. J. T. Rugh, of Philadelphia, President of the Philadelphia Medical Club, was then introduced, and presented a paper on "Surgical Tuberculosis". He stated that surgical tuberculosis is now on the decrease; in the larger clinics, 15 years ago, 10 cases were a weekly average, while now only 1 or 2 cases appear. This is due probably to an improved milk supply, education, improved health conditions and perhaps to a higher resistance to the disease.

From the medico-legal aspect, on the relationship between traumatism and tuberculosis, he said that an injury localizes a tuberculous condition. As affecting bone, it is a disease of the ends of long bones and never of the shaft; it is an absorption, an atrophy, a non-productive process in contradistinction to a pyogenic or productive process. There is a permanent early atrophy of the affected parts including muscles and bones; x-rays will show the area of bone absorption. A limp, a disturbed function in all directions due to muscle rigidity are the early symptoms. There are night cries, an elevation of 1 or 2° temperature (never fever as high as 102°). Pain (referred) is always late. X-ray examination, made early, is of no value except for elimination. The Von Pirquet test is unreliable after 2 years of age.

The 2 conditions for differentiation are rheumatism and coxa plana. Rheumatism is uncommon in children. Coxa plana occurs between 8 and 12 years of age, usually in fat children, affecting one or both hips, and simulates tuberculosis except that no atrophy is present. There is a history of good health, a slight injury, a limp, favoring the hip, a limitation of motion, except flexion and extension.

The treatment is rest, absolute and complete, and the building up of the patient. Heliotherapy is a potent agent to build up resistance of the body. A tuberculous abscess should only be opened when it increases rapidly in size, is pointing, or when it interferes with the health of the patient; then open by aspiration, for mixed infection cannot be overcome. A tuberculous condition is never cured, for the healed process may break down later.

It was regularly moved and seconded that a rising vote of thanks of appreciation be given to Dr. Hollingshead for a very excellent and instructive evening.

It was voted to accept an invitation from the New Jersey State Antituberculosis League to meet with them at our next meeting in June at Burlington.

#### CAMDEN COUNTY

Grafton E. Day, M. D., Reporter.

The regular monthly meeting of the Camden County Medical Society was held at the City Dispensary, Tuesday, April 12, at 9 p. m., Dr. Alfred Cramer, Jr., presiding. In the absence of the



secretary, reading of the minutes of last meeting was dispensed with.

Dr. Henry O. Reik, Editor of the State Society Journal, presented a report on the activities of his office and then exhibited the moving picture film depicting the "Technic of Periodic Health Examinations."

Dr. Howard Curtis, of Morristown, read a paper on "The Relationship of Types of Human Constitution to Disease", relating observations made in connection with Dr. George Draper, of New York.

Among those present from neighboring counties were: Drs. James Hunter, Henry B. Diverty and Ralph K. Hollinshed, all of Gloucester County.

CAPE MAY COUNTY

Eugene Way, M. D., Reporter.

The regular semiannual meeting of the Cape May County Medical Society was held at the Hotel Strand, Ocean City, on Tuesday, April 5, 1927. Dr. George F. Dandois presided in his usual pleasing and efficient manner. There were 40 members and guests in attendance.

The President introduced Dr. Thomas D. Taggart, of Atlantic City, who gave a most interesting and instructive address on "Hernia", citing many cases from experience; among them one of internal hernia, the twenty-ninth of its kind on record. Dr. Taggart was voted the thanks of the Society.

Dr. Robert A. Kilduffe, of the Atlantic City Hospital, gave a splendid address on "Laboratory Work as Applied to the General Practitioner". The address was greatly appreciated, and Dr. Kilduffe was given a vote of thanks.

A most pleasing feature of the meeting then followed. Dr. Randolph Marshall, of Tuckahoe, who had completed 50 years in the practice of medicine, became the honored guest of the Society, and at the luncheon was highly complimented by W. P. Haines, who, in an eloquent address, spoke of the successful record of Dr. Marshall; saying that there is no higher form of service than the medical priesthood, and that his high ideals had kept him active all these many years and he has raised unto himself a monument more lasting than bronze. He then, on the behalf of the society presented Dr. Marshall with a beautiful bouquet containing 50 red roses.

President Dandois then complimented Dr. Marshall upon his fiftieth anniversary as a physician and called on Dr. W. P. Glendon and Dr. John Moore, of Bridgeton, who offered their felicitations. Several of his classmates and associates also spoke, enlivening the occasion with jokes and reminiscences.

Dr. Marshall replied, thanking the society for the kindly remembrance, briefly reviewed many events of the past 50 years, and expressed a desire to be of continued service to mankind.

On the recommendation of the Board of Censors, Dr. William Steel, of Beasley's Point and Philadelphia, was elected a member of the society.

During the business and scientific session of the society, another happy and important event was consummated. The wives of the members of the society, under the leadership of Mrs. Barbash, of Atlantic City, organized an auxiliary society with the following officers: President, Mrs. George F. Dandois; First Vice-President, Mrs. Herschel Pettit; Recording Secretary, Mrs. A. C. Crowe; Corresponding Secretary, Mrs. Robert Smith; Treasurer, Mrs. Oscar F. Ziegler.

A special meeting of the society and the auxiliary society will be held at the Egg Harbor Inn, Beasley's Point, late in May.

CUMBERLAND COUNTY

E. S. Corson, M. D., Reporter.

The society met at the Cumberland Hotel, Bridgeton, at 2:30 p. m., Tuesday, April 5, with Dr. H. H. Wilson in the chair. Dr. Leslie E. Myatt was elected to membership by unanimous vote. The names of Drs. Dare Woodruff and Elsmore Stiles were proposed for membership and referred to the censors.

Dr. Henry O. Reik, Executive Secretary of the State Medical Society made a brief report of his activities since last attending a meeting of this county organization, and then exhibited the moving picture showing the "Technic of Periodic Health Examinations".

Dr. S. T. Gilpin, of Philadelphia, gave an interesting address on "Some of the More Common Mental and Nervous Diseases". He spoke of hysteria as a functional condition, inborn but developed by some exciting factor. Shell shock was an hysterical manifestation; at one army camp there were 2500 cases just before the armistice, and 2200 of these patients were ready for discharge 2 days after that event. In judging workman's compensation cases, hysteria must be remembered and distinction made between the real effects of injury and the imaginary, and between hysteria and malingering. Neurasthenia concerned with a multitude of affections secondary to pathologic conditions; proper diet, regulation of work and rest hours, and suggestion will do much toward effecting cure.

Functional and organic headaches may be difficult to differentiate; study the history and habits of the patient carefully. Syphilis of the nervous system presents variable symptoms, but if recognized early is curable. The "malarial treatment" is probably no better than other methods.

ESSEX COUNTY

William M. Rathgeber, M. D., Reporter.

The regular monthly meeting of the Essex County Medical Society was held Thursday, April 14, at 8:45 p. m., in the auditorium of the Academy of Medicine, 91 Lincoln Park, Newark, N. J.

The speaker of the evening was Dr. Charles A. Gordon, Chairman of the Committee on Graduate Medical Education of the New York Medical Society, who spoke on the subject "Taking Graduate Education to the Practitioner". Dr. Gordon, who is from Brooklyn, outlined the progress that has been made in that city toward reaching the general practitioner with graduate instruction. This is accomplished by having series of lectures during the year. In the King's County Medical Society of New York, they have 2 series of lectures, one in the spring and one in the fall. The lectures are given once a week and lasting for one hour; 6 to 10 lectures comprising a series. Subjects for lecture material are sent in by the practitioners themselves to the committee on graduate instruction, who, in turn select a capable man to talk on that particular subject, including presentation of practical demonstrations where possible. Lecturers are given the subject on which they must talk for not over one hour. For this they receive traveling expenses and an honorarium of \$25 per day. These lectures are not limited to members of the county society but include all physicians in the county

or counties, since it is for the purpose of elevating present standard of treatment. Lectures are usually limited to modern methods of treatment of things that the general practitioner is meeting in his daily rounds. In Brooklyn, topics for lecture have been chosen on subjects such as follows: Infections of the Hand; Pelvic Infections in Women; Cardiac Murmurs and Arrhythmias; Office Gynecology; Common Skin Diseases; Hypertension; Diabetes; Dry Labor; Breech; Office Orthopedics; Diseases of the Breast; Backache; Pruritis; Fits; Goiter, and Prostate.

In New York, the State Society allows \$3000 to \$5000 per year to defray expenses involved in producing the lectures.

The paper was discussed by Drs. H. Martland, H. Barkhorn and F. W. Pinneo.

### GLoucester County

Henry B. Diverty, M. D., Reporter.

The Gloucester County Medical Society met at the Country Club, Thursday, April 21. Members present were: Drs. Buzby, Livingood and Downs, of Swedesboro; Burkett, Knight and Lummis, of Pitman; Dufield, of Glassboro; Ashcraft and Lee, of Mullica Hill; Wood and Sinexon, of Paulsboro; Hollinshed, of Westville; Campbell, Underwood, Sickel, Pegau and Diverty, of Woodbury.

A most excellent address was given by Prof. J. Parsons Schaeffer, Director of the Daniel Baugh Institute of Anatomy of the Jefferson Medical College. His subject was "The Individual Anatomy of Man as Applied to Practical Medicine and Surgery". His address was supplemented by original slides made by himself. His statements were based on observations he had made in the dissection of a thousand bodies.

### HUDSON County

M. I. Marshak, M. D., Reporter.

The Hudson County Medical Society met at the Jersey City Hospital, on April 5, with Dr. W. Friele presiding.

A motion was made, seconded and passed, that the Program Committee of the State Society be asked to change the program as outlined in the Journal, so that the House of Delegates should meet daily. The secretary was instructed to communicate with the State Society to that effect.

Dr. Reginald Burbank, of New York, gave the talk of the evening on "Serologic Diagnosis and Compliment Determination in the Arthritides". The arthritides are the oldest type of diseases known to man. The results are easily demonstrable in the skeletons of the earliest types of man and preman, as well as in mummies of the different ancient races. They are especially to be found among the river and plain dwellers but are not absent even among mountain inhabitants.

Focal infection was first written of as a theory in the etiology of these conditions by Musgrave in 1776, who quotes an author of the previous century who discussed abscessed teeth as a possible factor. In the early compliment fixation work, only a single strain of *Streptococcus viridans* was used as an antigen with an inactivated serum and the patients native compliment. Later, *Streptococcus hemolyticus* was used and showed a marked fixation. As time went on various different strains of streptococci from known focal infections were used in making the antigens. It was found that even if certain strains have morpholo-

gic, cultural and fermentation characteristics in common, serologic fixation may vary. In making present day antigens, cultures are taken from all possible sources of infection such as teeth, throat, tonsils, urines, feces, bronchial secretion, etc., and only those strains preserved for making vaccines which correspond to the compliment fixation strains. Experience has shown that apical erosions of the teeth are more involved as points of focal infection than are the large abscesses. The same is true of the small submerged infected tonsil as compared to the large ones.

Burbank deplored the promiscuous use of vaccines and expressed himself as against the use of peptone because it reduces compliment, and of nonspecific protein on account of the severe reactions. He stated that loss of weight during vaccine therapy is due to too large dosage. Vaccines should never be used in acute infections, as the body is at that time overwhelmed with antigens and the addition of more antigen in the form of vaccines is like goading a tired and failing horse. He claimed that all cases show an influx of organisms into the blood at some time, as demonstrated in a hanging drop of freshly citrated blood, but that they are difficult to grow. By neutralizing the compliment, cultures may be obtained after a few days.

Infection in the sinuses, throat, teeth, nasopharynx and bronchial tubes is primary, while that of the bowel is usually secondary. There are 2 general types of arthritides; the peri-articular and the hypertrophic. The peri-articular type is usually due to the *Streptococcus hemolyticus*, while the hypertrophic form is due to the viridans. In hemolytic infections, the patients are usually thin and sallow with a low blood pressure, while in the viridan infections they have a high color and a high blood pressure. The streptococci are the only organisms with which one can produce the different forms of arthritis experimentally.

Vaccine therapy should be used in conjunction with all other modes of accepted treatment. A familial tendency is present quite frequently in gout and the gouty types of arthritis.

The general method of treatment by vaccines consists in the use of small doses over a long period of time trying to prevent shock results. If patients are deficient in compliment or their serums are anticomplimentary, vaccines will make them worse. If there is a 24 hour general or a 48 hour focal reaction, the dose of vaccine should not be increased. It is frequently better to immunize the patient with vaccine before removing the focus of infection.

Drs. Dickinson, Jaffin, Sexsmith, Pollak, D'Cirno, M. Frank, Friele, Piskorski and Burbank took part in the discussion.

### HUNTERDON County

L. T. Salmon, M. D., Reporter.

The regular quarterly meeting of this Society was called to order by President Williams at 10.30 a. m., on April 19, in the Grand Jury Room in Flemington. The attendance was small, about one-third of the membership being present.

After the routine work of the Society was disposed of, Dr. G. B. Tompkins, of Flemington, gave an interesting address on the "X-Ray Diagnosis of Constipation", in which he outlined the 3 forms which the rays determined: the atonic, the spastic and the redundant bowel type. Treatment of these was discussed by Dr. Tompkins and as a result of his detailed report there arose a fairly comprehensive discussion of the constitutional effects of constipation, the importance



of the bowel as a focal infection site, skin diseases apparently associated and dependent upon assumed bowel toxemias, dietetic values in constipation, the excuses assumed for surgical interference in bowel infections and toxemias, together with mortality statistics in colectomies, and finally, the laboratories and their reliability in bacteriology and blood analyses.

Each member present took an active part in these discussions and many cases were cited to illustrate the points which were freely made by the several men in their turns. This discussion was far-and-away the best which it has been the pleasure of this Society to enjoy in many a year and it was decided that some such symposium might easily supplant, to the great advantage of the members, a more formal program at our future meetings.

The President appointed Dr. G. B. Tompkins to fill the vacancy on the Board of Censors caused by the death of Dr. G. N. Best.

The discussion then turned to the subject of a letter requesting this Society to organize a Woman's Auxiliary. After considerable debating on both sides of the question, several members were asked what the practical application of this request would elicit from their respective wives and in each instance most discouraging opinions were given as the inevitable reply to such an invitation. The matter was tabled until some more practical solution of the proposed organization should appear.

A dinner was served at the Union Hotel and the members were informed that Dr. S. B. English had tendered an invitation to the Society to be his guests for the July meeting at Glen Gardner.

### MERCER COUNTY

A. Dunbar Hutchinson, M. D., Secretary.

The Mercer County Medical Society met in the Caretaret Club, April 13, at 8.30 p. m., President Sill presiding.

The minutes were suspended, and Dr. T. Grier Miller, of the University of Pennsylvania, was introduced and addressed the society on the subject of "Ephedrin, with Reference to Its General Clinical Value". Dr. Miller gave a resumé of the present knowledge of ephedrin beginning with the use of this drug in China 5000 years ago and following its history to its development under the direction of himself and others. The clinical investigations carried out extensively by Dr. Miller proved that ephedrin is (1) cardiac stimulant, and will raise the blood pressure for several hours, with rapidity of the heart action increased; (2) dilator of the pupil; (3) inhibits intestinal muscle. The dosage of 1 to 1½ grains is found to give the most satisfactory clinical results. Dr. Miller stated that he found he could produce heart murmurs at will, and has since learned to feel less anxious in regard to them.

The remarks of Dr. Miller were most favorably commented upon, and many questions were asked with reference to the use of ephedrin.

The minutes were read and approved. Dr. North made an earnest appeal for greater support of the Physician's Exchange, now in operation.

Dr. Schaufler stated that if agreeable to the society arrangements would be made for the usual Princeton meeting. The society accepted the invitation. Drs. Berman and Powis were elected to membership. Dr. Wm. S. Hayling presented an application for membership. Following luncheon the society adjourned.

### MORRIS COUNTY

Marcus A. Curry, M. D., Reporter.

The Morris County Medical Society held a special meeting open to the public, on Tuesday evening, April 26, at Washington Hall in Morristown.

In the absence of President Plume, Vice-President Haven accepted the rôle of presiding officer.

In opening the meeting Vice-President Haven said that the society has adopted a plan this year to have special meetings with the idea, particularly, to have one or two meetings of interest to the general public and outside organizations, such as the Visiting Nurses Association, Social Service Association and other similar organizations; that this is a sort of an experiment and we hope to be able to give several meetings on subjects that will be of interest and as the knowledge of these meetings spreads about there will be a larger attendance.

The meeting was divided into two parts: first, along the lines of preventive medicine. Dr. Haven reminded that everyone has seen much in the papers about the value of periodic health examinations; trying to find out or, at least, trying to tell people when they need to go to the physician and trying to find out the things that need attention, which, otherwise, might be overlooked.

The first section of the meeting was conducted by Dr. Henry O. Reik, Executive Secretary of the State Medical Society and Editor of the State Journal, on the subject of "Periodic Health Examinations". In his introductory remarks Dr. Reik said he felt honored to be present as a representative of the State Medical Society because we have undertaken in the last few years, something rather new to the profession; that of carrying our message regarding improved health directly to the people; that the medical profession has ethics centuries old to which it adheres and intends to adhere as long as it exists, but we feel that a proper conception of that code carries with it educating the people to understand the ways and means at their command to prevent sickness; that we would rather look after them while they are well than after they have gotten into poor condition by neglect.

Dr. Reik's talk was well adapted to the understanding of a mixed audience and leavened at intervals with mirth-giving stories of incidents pertinent to the point.

A motion picture of the simplest and quickest method of making a thorough routine examination was exhibited.

The second part of the program was conducted by Dr. Howard C. Taylor of New York City, President of the American Association for the Prevention and Control of Cancer, on the topic of "Cancer Control".

Dr. Taylor gave an address that covered his subject with much clarity and detail, stating that it goes without question that this cancer problem is the greatest health problem that has not yet been controlled. Some figures will show how great this cancer problem is in this country; that there are in the United States about 100,000 recorded deaths from cancer each year; that the average duration of life with cancer is roughly two years which means that there are 200,000 cases of cancer in the country; when we say 100,000 per year that is about 90 per 100,000 of the population. The record death rate of 100,000 shows that among women over 45 years of age, between one in five or one in six have cancer, and men of age 45 somewhere about one in 7 has cancer. Dr. Taylor showed by citing the experiences in De-

troit, where an intensive short campaign had been carried on, the number of cases that can be disclosed and how when taken in their incipency they can be eradicated, as against there going to the operative last resort stage when it has gotten into the blood and breaks out in other parts of the body.

Dr. Taylor explained the work the Association is carrying on; stating that there are 3 main activities for the handling of this cancer problem; first, research work; second, hospitals and treatment; third, the educational work which the association is trying to do.

Dr. Taylor described the laboratory work done in cancer research illustrating how cancer could be bred to become hereditary in animals, but that it was not hereditary in humans; that the cause of cancer is not known, in the sense we know the cause of typhoid fever; that every few months someone has discovered the cause and that lasts until some one tries it and disproves it; whether it is caused by a germ, we don't know; many men who do research work don't believe that a germ is the cause of cancer; we can be sure that it has more than one cause.

Dr. Taylor's address indicated that hope for the control of cancer lies in early recognition of the symptoms and prompt attention, and to accomplish this there must be a general awakening to the seriousness of the problem, through education of the public and of the physician in referring the cases as speedily as possible.

The joint program of Drs. Reik and Taylor was of great interest to the physicians and lay members of their audience.

#### SALEM COUNTY

William H. James, M.D., Reporter.

The regular meeting of the Salem County Medical Society was held on the afternoon of April 13, 1927, at the Memorial Hospital. The meeting was called to order at 2 o'clock by Dr. David W. Green, the President. Owing to the absence of Dr. G. A. Davies, Dr. W. T. Hilliard acted as secretary.

After the regular business of the meeting was transacted, the society had the pleasure of hearing Dr. Thomas B. Lee, of Cooper Hospital, Camden, N. J., who spoke on the "Diagnosis of Gynecologic Diseases". Among other things, Dr. Lee said that it was the duty of the family physician to look after his patients and it takes a better doctor to be a family physician than it does to make a specialist. A patient with cancer above the internal os seldom lives over 1 year. Appendicitis and a right salpingitis are very hard to differentiate. Backache below the waistline is always due to gynecologic disease.

At the conclusion of the paper, Dr. Lee was given a vote of thanks from the society for his essay.

The next speaker was Dr. A. Haines Lippincott, of Cooper Hospital. Dr. Lippincott's subject was "Urinary Disturbances in the Female". Frequent micturition in the female is caused by various conditions—disturbances in the urethra, bladder, ureters and kidneys. A very thorough examination is required to determine the cause and to make an accurate diagnosis. Stricture of the urethra is a common cause of urinary disturbances in the female. This may be caused by gonorrhea; diet has but little to do with causing urinary disturbances; acid urine may be a factor in the cause.

Dr. Paul Mecray, also of Cooper Hospital, was present and was called on to make a few remarks

on "Cancer of the Pancreas". The doctor said that in his opinion cancer of the pancreas was a common sequel of gall-bladder disease.

The resignation of our Secretary, Dr. G. A. Davies, was accepted because he is going to move out of the state.

The delegates present from other societies were: Cumberland—W. P. Glendon, L. E. Myatt, and John Moore; Gloucester—Samuel F. Ashcraft; Camden—A. Haines Lippincott, Thomas B. Lee, Paul Mecray.

Dr. R. M. A. Davis, of Salem, gave a report of the Welfare Committee work.

The Woman's Auxiliary of the Salem County Medical Society met at the hospital with 6 members present.

The next meeting of the society will be sometime in May when the social session will be held and a plank shad dinner will be served.

#### SOMERSET COUNTY

Lancelot Ely, M.D., Reporter.

The Somerset County Medical Society held its regular session in the Somerville High School Auditorium on April 14, 1927. The wives of the physicians had been invited to attend this meeting to consider forming a Woman's Auxiliary to the County Society. The Somerset County Medical Society approved, and recommended that such an auxiliary be organized in our county. Mrs. Anna M. Barbash, wife of Dr. Barbash of Atlantic City, explained the objects of such an organization, and the By-laws of the State organization for women were read. The doctors withdrew for informal discussion, and the ladies proceeded to elect officers of their auxiliary.

#### UNION COUNTY

Russell A. Shirrefs, M.D., Reporter.

About 75 members attended the regular quarterly meeting of the society held at Muhlenberg Hospital, Plainfield, on the evening of April 13, with Dr. George Orton presiding.

Miss Seifert, of the Visiting Nurse Association, and Miss Lucas, of the Family Welfare Society, were introduced and spoke of the urgent need for establishment of a county psychiatric clinic and asked the society for its endorsement of such a clinic. The matter was referred for consideration to the Committee on Public Health and Publicity, with request for a report at the next meeting.

The Physicians' Medical Club of Plainfield, through its President, Dr. N. W. Currie, gave an interesting clinical program during which several patients were presented. One of Dr. H. D. Corbusier's patients, a girl of 10, with a curious wedge-shaped malformation of the tenth vertebra, showed improvement after several months of treatment by physiotherapy and by wearing a specially devised butterfly spinal brace. Only 3 other similar cases have been recorded. Dr. Corbusier also showed a young man who had a marked congenital wry-neck, cured by operation. Also a girl with a multiple osteomyelitis of the shoulders and hip-joint.

Dr. E. P. Darlington, pathologist, showed specimens removed at autopsy: (1) A large cyst above the gall-bladder resulting from an anomalous formation of peritoneum; (2) tumor mass from the left chest, arising from the pleura; (3) mediastinal teratoma of embryonal mesodermal structure, which occupied the entire left chest. Dr. Darlington discussed the gross and microscopic pathology of these growths.



Dr. H. V. Hubbard presented a boy who, following a mastoid operation, developed a sinus thrombosis. Resection of the jugular was followed by recovery. Now he has an acute otitis media on the affected side.

Dr. C. B. Lufburrow reported a posterior gastro-enterostomy on a man in June, 1925, for what was apparently an advanced gastric carcinoma. In September, 1926, another operation showed both the pyloric and operative openings practically closed by a morbid growth, so anterior gastro-enterostomy was done as a palliative attempt to postpone death. Now the man is surprisingly well and working daily.

Dr. E. P. Weigel showed a boy who after an extensive osteomyelitis in the region of the left sacro-iliac joint, which involved the destruction of much tissue, had made a good recovery after several operations.

Dr. F. J. Hughes reported a case of hypertrophic pyloric stenosis in a new born infant, and stressed the importance in such cases of recognizing the symptoms of vomiting and constipation. After an operation by Dr. Benjamin Hedges, the infant was making a good recovery, and was presented for inspection.

Dr. W. T. Carstarphen exhibited some massive renal calculi which were obtained from a man following a nephrectomy by Dr. Currie. Dr. Currie presented a man on whom he had operated for Graves' disease, and who was making very favorable progress.

Election of new members included Drs. M. I. Woodey, W. A. Gollick, P. F. Cardinale and M. L. Rippes, of Elizabeth; G. W. Disbrow, Summit; and J. E. Stuart, Plainfield. Several others were proposed for action at the next meeting.

The following resolution was unanimously adopted: There shall be a Committee on Public Health and Publicity, composed of the President, Vice-President, Secretary and 6 members, whose term of service shall be three years. They shall be elected at the meeting at which this is adopted as follows: 2 to serve 1 year, or the balance of the fiscal year; 2 to serve 2 years; 2 to serve 3 years. Thereafter 2 shall be chosen at the annual meeting for periods of 3 years.

The duties of this committee shall be to confer with the representatives of the municipal, county or state government on matters of public health, and also when requested advise such officials on the policy which in the judgment of the committee is best to pursue in any public health matter. It shall also have the right to formulate policies of public health and give publicity to these and to such matters as are of benefit and interest to the public at large; all of this with the sanction of this society. Those elected to serve on this committee were Drs. C. H. Schlichter, N. W. Currie, W. B. Morris, H. R. Livengood, G. W. Strickland and G. S. Laird. Those elected to the Legislative Committee were Drs. I. Lerman, S. F. Wade and G. Knauer.

A vote of thanks was extended to the hospital authorities, to whom the society was indebted for a delightful luncheon.

Dr. Reik, although in the building, did not honor us with his presence. Instead, he was in another room having a joyous time assisting the ladies in the important work of organizing a Woman's Auxiliary to the Union County Medical Society. He pointed out to them that the New Jersey State Medical Society, which was in its 161st year, was the oldest medical organization in the United States, and New Jersey's membership of doctors in good standing numbered over 2300. In speaking of the auxiliary work, he stated that such an organization was first

started by the wife of a Texas doctor in that state 7 years ago. It aims to help in the educational, social and legislative programs, and has helped to stimulate better attendance of the doctors at their society meetings. A constitution was adopted and officers elected.

A buffet supper followed the business session and afforded the 40 ladies a pleasant opportunity to become better acquainted.

### Summit Medical Society

William J. Lamson, M. D., Secretary.

The regular monthly meeting of the Society was held at Wallace Pines, on Tuesday, March 29, 1927, at 7 p. m. Instead of the usual formal session, the Society gave a dinner in honor of Dr. Wellington Campbell, of Short Hills, who has been an honored member of the Society since its formation in 1905, and who recently completed 50 years of active practice in his profession.

In the absence of the President, Vice-President Morris presided. At the head table, besides the Vice-President and the guest of honor, were Dr. Thomas W. Harvey, of Orange, and Mr. George Taylor, of Short Hills, lifelong friends of Dr. Campbell; Dr. Lawrence and the Secretary.

Those present at the meeting were: Drs. Baker, Bensley, Bowles, Burritt, Byington, Campbell, Disbrow, Eason, Falvello, Johnson, Krauss, Lamson, Meeker, Meigh, Milligan, Moister, Morris, Pollard, Reiter, Smalley, Tator, Tildaback and Wolfe; and, as guests, Drs. Jamison, Larrabee and McGregor of Summit and Dr. MacPherson of Millburn.

The dinner was a gastronomic delight, and a credit to the proprietor of Wallace Pines. Over the coffee, Dr. Morris, in the name of the Society, congratulated Dr. Campbell on his long and active life of service to the community, and also the Society in being able to pay this honor to its distinguished member. He presented Dr. Campbell with a handsome pipe as a slight token of affection.

Dr. Harvey spoke of the early days in the practice of medicine in this locality, and of Dr. Campbell's untiring and cheerful helpfulness to the community, not only as a physician, but also as a public spirited citizen.

Mr. Taylor, who has known Dr. Campbell for 40 years, both as physician and friend, spoke in high praise of the character of our guest of honor.

Dr. Campbell gave us some interesting reminiscences in the life of a busy country doctor, covering a period of 50 years. Long distances, microscopic fees, difficulty in transportation, crude armamentarium, all reminded us of the advance in the life of the rural practitioner.

The Society extended its felicitations to Dr. Campbell, and wished him many more years of usefulness in his profession.

As this meeting was the usual quarterly meeting of the Hospital Staff and the Society, a report of the records for the past 3 months was made, and the individual cases were discussed by the attending physicians.

The meeting then adjourned.

### WARREN COUNTY

F. A. Shimer, M. D., Reporter.

The quarterly meeting of the Warren County Medical Society was held at the Elks' Club, Phillipsburg, N. J., at 9 p. m., April 12, 1927. Dr. Russel B. Stone, presiding.

Dr. Henry O. Reik's communication regarding the Ladies' Auxiliary was favorably received.

Dr. W. C. Albertson, of Belvidere, N. J., gave a talk on "Abdominal Pains". Discussion was entered into by all the members present.

Dr. C. B. Smith, of Washington, N. J., read a very interesting paper on the "New Hemostatic Preparation (Ceanothyn)", which was followed by a lengthy discussion by Dr. L. W. Hackett, of Washington, N. J.

Drs. Stone, L. H. Bloom, H. Bloom, Bossard, McKinstry, Curtis, Albertson, Wolf, Smith, Hackett and Shimer were present.

### SPECIAL REPORT

#### ANNUAL CONVENTION AMERICAN COLLEGE OF PHYSICIANS

The American College of Physicians met in its Eleventh Annual Clinical Session at the Hotel Cleveland as the guest of The Cleveland Academy of Medicine and The City of Cleveland, Dr. John Phillips, General Chairman, February 21-25, 1927. About 1500 internists, representing 43 states, Canada and England were in attendance.

Clinics, lectures and demonstrations were given in 25 hospitals, clinics and other medical institutions. The Medical Department of Western Reserve University afforded excellent opportunity for laboratory, clinical and didactic instruction. Lavish entertainment was provided for all and the session was voted among the College's best.

New Fellows were elected at this session to the number of 134, as well as 41 Associate Members. A revised Constitution and By-Laws was adopted, important business transacted and officers elected. The new officers for 1928 are: President, Frank Smithies, Chicago; President-Elect, Charles F. Martin, Montreal; First Vice-President, Alfred Scott Warthin, Ann Arbor; Second Vice-President, S. Marx White, Minneapolis; Third Vice-President, Stewart R. Roberts, Atlanta; Treasurer, Clement R. Jones, Pittsburgh; Secretary-General, George Morris Pierson, Philadelphia. Meeting place 1928, New Orleans, La.

The objectives of The American College of Physicians are (1) to uphold and maintain high standards in medical education and practice; (2) to encourage research, especially in clinical medicine; (3) to foster measures for the prevention of disease and for improving public health; (4) to perpetuate the history and best traditions of medicine and to maintain high standards of medical ethics; and, (5) to maintain the dignity of our profession in its relationship with patients.

During the past few years the Hospital Efficiency Committee of the College worked in harmony with a like committee of the American College of Surgeons and has been active in upbuilding the standards of hospitals in the United States and Canada. The College, at this session, has started a drive through its members and other channels to impress the absolute need of autopsies as the best index\* of medical practice and the greatest source of our knowledge. The general public needs education upon this vital subject and autopsies should be more frequently demanded and executed, and efficient notes and records filed in every hospital and private case.

Every paper and demonstration presented at the afternoon and evening sessions of the College was of vital importance and showed the best and newest methods, investigations and treatment in the field of internal medicine. It would be impossible to summarize these talks satisfac-

torily, but some of the high lights might be briefly mentioned.

Dr. C. W. Stone, Cleveland, reported 108 cases of fully confirmed general paresis treated during 1925 and 1926 in the Cleveland City Hospital by inoculation with tertian malarial plasmodium. The strain used was taken from a normally acquired tertian malaria. The infected blood was injected into the patients to produce the infection. Seven cases gave no response. Of the remaining 101 responding with acute malaria, 87 were males and 14 females varying in age from 24 to 60 years; 13 died—6 from infective cellulitis, 4 from pneumonia, 2 from apoplectic seizures and 1 from lowered resistance; 38 were discharged to their homes, of whom 18 have resumed their work; 20 were much improved and a number of these should be doing something; 50 remaining cases showed 25 as unimproved and 25 as somewhat improved. In 1925, the Rockefeller Institute introduced tryparsamid, which was used in some of these cases after the acute malaria had subsided, and with apparent good results. While Dr. Stone figures about 38% of marked improvement in his inoculation cases, he cautions—"It must not be heralded with too much acclaim, but it does promise".

Dr. W. E. Bastedo, New York, sounded a word of caution as to the indiscriminate use of digitalis as a heart stimulant. Contrary to general belief, it is not contraindicated in nor does it increase hypertension.

Dr. H. G. Beck, Baltimore, spoke on chronic monoxid poisoning. He stated that an habitual tobacco smoker's blood has a carbon monoxid saturation of from 8 to 22% while 30% saturation is the danger point. In Baltimore, 60 persons died during 1926 from carbon monoxid poisoning from automobiles and other sources—enough cases, were they small-pox, to throw the city into a panic. No traffic officer in a congested street should be exposed to the fumes of automobiles for a longer period than 4 hours at a time, as it endangers his health and shortens his life; 2/10 of carbon monoxid in the air is dangerous while 4/10 will produce death in an hour. Dr. Beck warned against open heaters that are not properly vented.

Dr. E. P. Joslin, Boston, cautioned against over-dieting or starving in diabetes. In the study of this disease we must have more autopsies; especially among the Jews, who are twice as susceptible as other races. "If a diabetic has lived 10 years without your help, be sure that you can make him live another 10 years at least before you tamper with his diet."

Dr. C. H. Best, Toronto, codiscoverer with Banting, of insulin, demonstrated that insulin favors the deposit of glycogen in the muscle tissues, and that glycogen is essential before muscles can do their work.

Dr. W. McKim Marriott, St. Louis, told of "The Relationship of Focal Infections to General Diseases in Infants and Young Children". He stressed mastoid antrum infections, often on both sides, in many cases of old nutritional disturbances requiring antrotomy, and spoke of sinus infections causing enlarged cervical glands, asthma, heart murmurs and nephritis.

Original papers and transactions of The American College of Physicians will be published in *Annals of Clinical Medicine* (Baltimore, Md.), its official periodical.

W. Blair Stewart, M. D.,

Governor of The College of Physicians for New Jersey.



## County Medical Survey

### MEDICAL SURVEY OF CAPE MAY COUNTY

Eugene Way, M.D.,  
Dennisville, New Jersey.

Cape May County, which for centuries was the abode of the wandering red shin, is an interesting field for historical research.

The date when the first white man visited her shores is veiled in obscurity, but the earliest authentic history on the subject states that Hudson, in the Half Moon, entered the Delaware Bay the twenty-eighth day of August, 1609; but he did not explore it.

The renowned Captain Cornelius Jacobson Mey visited our shores and explored Delaware Bay in 1623, and to him the County of Cape May is indebted for a name. His name is also retained by several cities and towns in the county.

An Act of Assembly of November 12, 1692, created the County of Cape May and gave her 5 members of the legislature. The population being then, as nearly as can be estimated from the records, about 200.

On May 12, 1697, an Act of the Legislature provided for a road from Burlington to Cape May, which was not finished until 1707. Prior to this time there was no communication with the outside world except by the waters of the Atlantic Ocean and Delaware Bay, or by horse paths through the swamps. The first railroad was built in 1863. The population of the county increased very slowly, being less than 300 in 1713, 668 in 1726, and 1004, including 42 slaves, in 1738.

The first recorded member of the medical profession to become interested in the county was Dr. Daniel Coxé of London, who in 1688 purchased 95,000 acres of land and built a commodious structure known as Coxé Hall. It was 2 stories in height with a tower from which observations could be made across the bay and far out on the ocean. The building was used for public meetings, religious assemblies of all denominations, and the first court for the county was convened here on March 20, 1693.

The first doctor known in Cape May County was Richard Smith, who was in 1705 given a license to practice "Cirurgery and Phisiq". He is supposed to have migrated from Egg Harbor to Cape May.

"In the winter of 1713-14 the county came near being depopulated by a greivous sickness which carried off between 40 and 50

of the inhabitants. The disease came on with pain in the side breast and sometimes in the back, navel, tooth, eye, hand, feet, legs or ear. It can scarcely be conjectured from the above recital of symptoms what the true character of the disease could have been. It was a severe retribution in a population of some two or three hundred, and Providence alone, who saw proper to afflict can solve the mystery."

This was undoubtedly an epidemic of influenza, which at irregular intervals for centuries has threatened to annihilate the human race.

Cape May County responded to the call for volunteers during the Revolution, and while a company was in training, an accident occurred which required a surgical operation, the first one recorded in the county. It was graphically described as follows:

"The third of May, 1777, at a training Thomas Godfrey having his gun charged with small stones by accident shot James Parker in the leg. The bone was much splintered and shattered and it was judged necessary to amputate it. For this purpose Docr. Otto was sent for from Gloucester County. The twelfth of May, afternoon, the amputation was performed by Otto, assisted by Dr. McGinnis of Philadelphia, Docr. Hunt and Dr. Benjn. Stites. The seventeenth of May he died."

"On the twenty-first of August, 1785, the Council of Safety in Philadelphia directed its treasurer to pay Dr. Frederic Otto for attendance on a man wounded at Cape May in the service of the State, L 6:11:13. This was probably for attending James Parker, who was wounded at a training on the third of May, 1777."

No further mention of medical men can be found until the war of 1812, where the records of a batallion show the following: "John L. Smith, Surgeon, second company, appointed March 6, 1820. Commissioned May 20, 1820. Joseph Fifield, Surgeon's mate second company, appointed June 14, 1821, commissioned August 28, 1821. Joseph Fifield, Surgeon, appointed February 1, 1825, commissioned March 4, 1825. Samuel S. Marcy, Surgeon's mate, appointed February 1, 1825, commissioned March 4, 1825."

Physicians must have continued to be a scarce article for from a writer of 1830, referring to the people of the county, we gather the following: "They are hospitable and respectable for the propriety of their manners and are blessed, usually with excellent health. Until lately they have known little practically of these necessary evils of social life, the physician and the lawyer."

Among the pioneers of the profession who traveled through the county on horseback or in two-wheeled gigs, special mention should be made of Dr. Maurice Beesley, who graduated in 1825. He was a noted scholar, educator, historian and legislator. In 1857 he wrote a history of Cape May County, which has been largely drawn upon in preparing this article. Others were: Samuel Marcy, 1826; E. L. B. Wales, 1827; Randolph Marshal, 1834; J. S. Kennedy, 1843; J. F. Leaming, 1846; V. M. D. Marcy, 1846; Palmer M. Way, 1850; Alexander Young, 1859.

During the Civil War, Dr. John Wiley served as Chief Surgeon of the Sixth Regiment of Infantry from August 17, 1861 to September 17, 1864. Dr. J. Howard Willets, who was born at Dias Creek in 1834 and graduated in Medicine in 1858, was in the service as Captain, Major and Lieutenant Colonel, serving from October 18, 1861 to during his senior year in medicine, left col-August 11, 1862. James Mecray, Jr., was Acting Assistant Surgeon from November 5, 1862 to April 1, 1864. Humphrey Swain, lege, enlisted in the navy, was commissioned a Surgeon on May 23, 1864, and served until June 25, 1865. He then resumed his course of study, graduating March 14, 1866.

The Cape May County Medical Society was organized on December 18, 1883, at a meeting in the office of Dr. J. F. Leaming, the following being present: Drs. V. M. D. Marcy, John Wiley, J. F. Leaming, I. M. Downs, J. H. Ingram and Eugene Way. The following officers were elected: President, John Wiley; Secretary, Eugene Way.

On January 17, 1884, the society again met and considered 14 additional names for membership and voted to make application to the State Society, at its annual meeting to be held in June, 1884, for a charter in order to become affiliated with the State Society.

The charter being duly granted, the county society again met on March 12, 1885, and recognized the following 20 members as the organizers and charter members of the Society: Drs. V. M. D. Marcy, John Wiley, Jonathan F. Leaming, Isaac M. Downs, James H. Ingram, Eugene Way, James Mecray, Henry Kennedy, Alexander Young, George G. Carll, Humphrey Swain, J. D. Linton, Joseph Marshal, Benjamin T. Abbott, Walter S. Leaming, Coleman F. Leaming, Palmer M. Way, Charles M. Gandy, A. H. Patterson, Randolph Marshal.

Officers for the ensuing year were elected as follows: President, John Wiley; Vice-President, V. M. D. Marcy; Secretary, I. M.

Downs; Treasurer, Randolph Marshal; Censors: H. A. Kennedy, J. H. Ingram and Eugene Way.

Of the original members only 4 are living: Col. C. M. Gandy, R. Marshal, J. H. Ingram and E. Way.

During the 43 years of its existence, the Society has had 25 presidents, 11 secretaries and 3 treasurers—Dr. J. C. Marshal was treasurer 4 years, Randolph Marshal 24; the present treasurer is serving his fifteenth term and the present secretary his twentieth term. The name of nearly every physician in the county is on the membership roll and much active and efficient work has been done along all medical lines.

The record of the medical profession of the county during the World War would fill a volume and will be the work of some future historian, but it is eminently proper at this time to state that every physician, regardless of age or physical condition expressed a willingness to do everything possible for the cause of humanity and the country's good and nearly every one took up some line of work, a large majority entering the service. Among those worthy of special mention is Col. C. M. Gandy, of the regular army, who, following a term of service at West Point, was Acting Surgeon General for over a year. Major Charles L. Gandy, Major C. W. Way and Captain J. S. Knowles, saw service over seas.

There are but few medical institutions in the county, a county hospital being a real necessity. Mace's Hospital, at Wildwood, partly supported by county funds, does efficient work. At Ocean City, there is a small private institution called Scotch Hall, and during the summer a well managed hospital for babies is conducted. Plans for a County Welfare Home are being formulated, and the institution will be ready for opening in a few months.

At Woodbine, there is a state institution known as "The Woodbine Colony for Feeble Minded Males", the number of inmates numbering 185 with a waiting list of nearly 200.

In addition to a group of cottages and dormitories, the colony has a modern, well equipped hospital of 32 beds, and while intended only for the institution, accident cases are not refused admission and emergency aid is often given.

The management of the Colony consists of John A. Tinsley, superintendent; Eugene Way, M. D., Medical Director; George S. Buhel, Supervisor, and William D. Tugwell, Head Nurse.



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## SCIENTIST AND ARTIST

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(An Address delivered before the Academy of Medicine of Northern New Jersey, March 16, 1927)

One by one the angles and interests of our lives are coming under the supervision of science. In great areas, where our dependence even a generation ago was on guesswork, on tradition, on simple faith, we now have verified knowledge for our guidance, or at least an hypothesis on the way to verification or correction. In either case, our expectation centers in the scientist.

How many public addresses have you heard which began very much as this one has begun? There is no need of further emphasis or reiteration. We all know that increasingly we are living under the reign of natural science. Physicians, of all men in the community, are aware of this fact. The scientist is king. He is in the saddle. But what I wish to point out tonight is that he does not ride alone. The artist continues to ride with him. You will recall the saying of Dogberry's, "An two men ride of a horse, one must ride behind." Now as regards the scientist and the artist it depends upon circumstances which is to ride behind. It is sometimes the one of them and sometimes the other. And now and then there is the inevitable scramble to see which one shall ride in front.

What I mean by *scientist* is what is generally meant. But the sense in which I am using the word artist may not be equally clear.

We commonly think of an artist as one concerned in the making of beauty. Musicians and painters, at one end of the scale, and sartorial and culinary artists at the other, have all of them this characteristic in common, that they are all concerned with matters of taste. But I am giving the word a still wider meaning tonight. If a scientist is one who learns and knows, an artist is one who makes and does. For the present, let us disregard the limitations of taste and beauty, and extend the term to apply to the production of things useful as well; or let us go further yet, and say that while the scientist is one who seeks to know the world as it is, the artist is one who seeks to make it different.

The achievement of useful results, when it rises above mere tradition and artizanship, is commonly referred to as applied science. Here is the domain of the professional practitioner, of the engineer, the modern banker, the surgeon and physician. Artists all in the larger sense. Masters of applied science. But note this fact: No one of these arts and professions is the application of a single science. A profession is not the mere servant of any one of the sciences. It has aims of its own, methods of its own, territories of its own. Within its range, it is itself king, and the sciences are there to serve its purpose.

Consider this profession of medicine, on which our interest centers tonight. So far as that groups of sciences is concerned which has to do with our bodily health, the physician calls upon them one and all according to his need. He organizes their findings in his treatment of a given case. When he reaches

their present limitations, he must still go on, as it were in the dark, summoning his own experience and creative imagination and that of his professional predecessors and associates to do what he believes to be the best for his patient, walking by his matured professional faith and not by sight.

He calls to the sciences, "You have given me the mastery of diphtheria, of tuberculosis, of yellow fever; now give me the mastery of pneumonia and of cancer." And the sciences may well reply, "We have not given you the mastery of any disease. We have given you materials of knowledge which you have organized into a victory of your own. We shall continue to give you these materials of knowledge as fast as our researches can bring them forth. But it is the art of your profession which must make them serve the purposes of healing. We are to make discoveries, sometimes at deadly cost. You are to invent the ways in which they are to serve a human need, and your invention, too, may be achieved at deadly cost. Each must have his part, and neither scientist nor artist will have done his perfect work till each has entered into the labors of the other."

It would be well for us all if the artist might know something of science, not in its uses only, but in and of itself. If he might know the detachment and exaltation of one who seeks truth not for its applications but for itself alone. And well, too, if the scientist might know the devotion of the artist, who considers what his work shall mean for the good of mankind. It would be well if each might share somewhat in the essential life of the other.

Now and then in the history of the world there appears a man who is scientist and artist both, and that in well-nigh balanced combination. The supreme historic example of this union was Leonardo da Vinci. The wealth of the spirit which found embodiment in this great figure of the Italian renaissance, has come only recently, within this present generation, to the general knowledge of mankind. Born in the territory subject to Florence, forty years before the discovery of America, the natural son of a young Floren-

tine notary, acknowledged and educated with the greatest care by his father, his capacity and passion for both science and the arts is the wonder of modern scholars who have explored the records of his career.

What field of knowledge and activity did he leave untouched? For centuries he has been known as a consummate painter. He was no less a sculptor and an architect. But he was also an engineer, a musician, a geographer, a physicist. On the new building of the Daniel Guggenheim School of Aëronautics at New York University are inscribed four names of those who have contributed most to the conquest of the air. The first of these names is that of Leonardo. He could not be content to represent the flight of birds, till he had inquired into the mechanism and method of their flight. He could not be content to paint a landscape, till he had gone deep into the principles of perspective and the laws of sight, the effect of atmospheric conditions, the botany of trees and flowers. His sculpture and portraiture rested upon a comprehensive knowledge of human anatomy acquired through a more patient and intelligent dissection than the whole history of medicine had produced before his time. A century before Francis Bacon he conceived the method of determining physical laws from phenomena, observed and experimental. Yet when he undertook to paint, he was altogether the creative artist, using his scientific acquirements according to his need, not as the servant of knowledge but as its master; alive to the deeper mysteries of the human spirit and ensnaring them upon the canvas, as in his *Mona Lisa*, alive to the deeper aspirations of religion in an age of harsh religious controversy, and bringing them to light in the majestic sweetness and sorrow of his *Last Supper*.

You may think my comparison far-fetched and fanciful if you will, when I take this master-artist of the fifteenth century as representative or symbol of the medical profession of the twentieth century. His art rested upon the scientific study of anatomy, as does yours. But there is a superficial resemblance. He was an artist, who made the sciences tributary to his art—any science that would serve his



purpose. The art that was then at its height was painting, and in this art his greatest triumphs were achieved. The art of healing was still in the depths. Today the two arts of medicine and engineering are in the ascendancy. In one of these the medical profession achieves its immediate triumphs; while in sanitation, medicine and engineering join their endeavors, to accomplish untold good for the human race. Let Leonardo, the artist of beauty four centuries ago, stand as representative in some sense of these arts of human use in the twentieth century.

Why must we believe there is an impassable gulf between the arts of beauty and the arts of use? In this age of the world, an impassable gulf is a gulf to be passed. Beauty will not stay put. In so far as it is the real thing, it breaks away, like Pegasus out of his stall, and wanders over the earth. It finds its affinity and reflection in the most unlikely places. Is there any art that has more to do with ugliness and nastiness than has the art of the physician or the surgeon? But it is all the while doing a work of redemption. Beauty for ashes. Lilies, white and gold, made from the mud. A beautiful thing is health. When a surgeon performs a clean and perfect operation or a physician, after accurate diagnosis, applies the effective remedy, how can you keep esthetics out of his contemplation of the result. No, I did not say *anesthetics*; but I realize that I must enunciate carefully, or these walls, from long custom, will give back the sound of a medical term. I said *esthetics*—the sense or science of beauty. A reckless paragrapher has said that a thing of beauty is a boy forever. When one of you has saved the life of a boy and sent him on his way to vigorous manhood—or a girl either, *mutatis mutandis*—you would not deny that among the satisfactions of that accomplishment is the sense of something beautiful that has entered into it. And when you have made a beautiful old age possible to any individual, who without your skill would have gone down into a miserable existence or an early death, you may well look upon your work with an artist's appreciation and see that it is good.

But enough of that. Let us turn to another

point of view, namely, the coöperative aspect of your profession. As human undertakings increase in magnitude, it becomes more and more necessary that men should work together for community ends, conceived and sought in common. Examples lie all about us. The larger purposes involve greater foresight. So the medical profession is now concerned not only with the treatment of individual cases affected by particular diseases, but with the treatment of disease in its wider scope, as affecting whole communities or the whole human race, and with treatment taking the form of prevention as well as of cure. You are familiar with these facts, and examples in great number will occur to you: hookworm, tuberculosis, yellow fever, malaria. Just now the profession is entering upon a study of common colds, which so greatly reduce the economic productiveness of our people. The cure of a patient is still the immediate concern, but the complete eradication of a disease, the world over, is now an ultimate aim.

What a tremendous development of human coöperation the pursuit of such an aim involves! Laboratories, engineering, insurance, organization for health and sanitation, municipal, state, national, and international, private and governmental. The scale of such undertakings is awe-inspiring and their ramifications are bewildering. And we must go a step further yet. Your profession may not stop with the prevention and eradication of disease; it will doubtless go beyond, into the problem of establishing the physical soundness and efficiency of the nation as a whole. Here it comes, more distinctly than ever, into relations with the ethical and spiritual forces of our people. For physical soundness and moral sanity cannot be divorced, when you are dealing with the people of a nation or the race of men. Without physical soundness grounded in moral sanity, a people or a race cannot permanently endure. In the course of centuries, they will fade away from the earth, in spite of all the physical antiseptics and prophylactics your profession or any other can provide. So your profession, more and more, finds itself under the necessity of coöperation with other professions, with education, religion, all of

them in fact, for the accomplishment of the ends of human life upon this earth.

In this conception, too, there is beauty, is there not? But beauty on so vast a scale that it may rather be described as grandeur, majesty, sublimity.

If you seek a conspicuous example of the larger service of the medical profession—and there are many of them—you cannot do better than turn to the career of William Crawford Gorgas. To have cleared Havana of yellow fever, to have done a like service at Panama and rendered possible the completion of the great canal, to have achieved the incredible results recorded in the general health of the American Expeditionary Force in the World War—this would seem to be more than enough for the life work of any one man. Yet in his perfect modesty, General Gorgas refused to take even the credit that was due him, and brought to the front those who had worked under him, and particularly those who in other professions, civil and military, and in scientific research, had worked with him, to make possible these marvelous results.

From this wider survey, let us return to the simple relationships of your art to the progress of the sciences.

At every step, you make new applications of science; you make new demands upon the scientist. As rapidly as possible, you replace tradition and intuition with ascertained and systematic knowledge. In so doing, you not only increase the percentage of your successes; you do two things besides, which are a gain to mankind. In the first place, you put the sciences to a test beyond the testing of the laboratory, you discover gaps and flaws in what the scientist has taught, you lead him on to fresh inquiries. In the second place, you educate the community. You teach your patients and their circle of acquaintance to have faith in the findings of science. You teach them to live under the reign of natural law. That is great gain, when science still must make its way against a tide of misconception, ignorance, and prejudice. You may go further, and educate your clientele to take the teachings of science with discrimination: to

take them gratefully, but with a grain of salt. For science, too, is incomplete, and some of its confident utterances of today will be modified tomorrow.

The very fact that science is advancing and therefore changing, accentuates the rôle of the physician as an artist. He must choose from available knowledge what will apply to the case in hand. In the face of conflicting hypotheses, he must give due weight to experience, insight, common gumption, common sense. He must have the humility that will learn from the successes and failures of others even from those who are not of his school. He must take account of heredity in his patients, of personal idiosyncrasies, of home surroundings. In all of this, he is an artist; and if he shall bring true scientific knowledge into working agreement with true intuition, he shall be recognized as a genius of his art, a priceless possession of the community and the nation.

It is with a rank outsider's view of your task and your achievements that I pay tribute tonight to your profession. It is a profession to which I and my house are immeasurably indebted. I think of those physicians who have helped us in times of physical distress and mortal danger, and I am grateful beyond measure for both their science and their art. Most of all, I am grateful for their humanity. These are feelings which I cannot adequately express, unless it be in the words of an ancient writer, who wrote for all peoples and for all the centuries. I turn to the sayings of Ecclesiasticus:

"Honor the physician for the need thou hast of him: for the most High hath created him. For all healing is from God, and he shall receive gifts of the King. The skill of the physician shall lift up his head, and in the sight of great men he shall be praised. The most High hath created medicines out of the earth, and . . . . . hath given knowledge to men, that he may be honored in his wonders. By these he shall cure and shall allay their pains, and of these the apothecary shall make sweet confections, and shall make up ointments of health, and of his works there shall be no end. For the peace of God is over all the face of the earth."—(Ecclesiasticus XXXVIII, 1-8.)



## THE CLINICAL UTILIZATION OF THE LABORATORY

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"Broadly speaking, there are only 2 methods of practicing medicine: A hasty survey, coupled with a tacit acceptance of the patient's diagnosis of 'indigestion' or what not and followed by a more or less effective symptomatic prescription—a method which has been succinctly termed 'peddling pills'—or an honest, scientific attempt to diagnose the underlying cause of the symptomatology and to formulate a plan of treatment in accordance with its mechanism.

"There is no satisfactory nor successful middle course or compromise even though the latter method may lead through tortuous or devious by-paths before the etiology and mechanism of the associated phenomena comprising the symptoms are laid bare."<sup>(1)</sup>

The average patient does not come to the physician merely because he is sick, but more often because the phenomena attendant upon his physical impairments have become sufficiently marked to interfere in greater or less degree with his accustomed habits of work or play. Every patient, and especially the ambulatory patient, has in his mind 3 questions: What is the matter with me? Can it be cured? How long will it take? And the answer to all these questions, in general, is greatly influenced by, if not entirely dependent upon, the answer to the first, for the successful and intelligent practice of medicine depends upon the making of a correct diagnosis.

Manifestations of disease, in brief, are manifestations of disturbance or loss of function, and not infrequently the particular functional imperfection which forms the chief complaint is only the end of a devious path leading back to a primary cause which must be uncovered, at times only by sustained endeavor and laborious search.

Diagnosis, as has been said in another

place<sup>(2)</sup>, is, to use a figure of speech, a matter of mathematics; a sum total of all the findings of a particular patient, plus their intelligent interpretation and evaluation plus their correlation with the recollection of the physician that the picture thus formed is similar to or identical with that produced by the pathologic mechanism involved in the production of a particular disease.

Few departments of medicine have undergone more extraordinary or more comprehensive development in the last several decades than that concerned with the study of reaction to disease, as a result of which the clinical laboratory now brings to study of the phenomena of disease a multitude of methods. Unfortunately, however, the multiplicity of methods at times appears to have led to some confusion as to their value and significance and there are grounds for believing that laboratory methods of examination are often regarded as tests for the presence or absence of certain diseases, rather than as means for eliciting information obtainable in no other way.

The fact that certain reactions occur rather consistently in certain diseases does not render them diagnostic per se of that disease, and even more fallacious is the conclusion or assumption that because they are absent the disease is absent, also.

*There are practically no pathognomonic laboratory tests! All require interpretation!* It would be greatly preferable and highly conducive to a better clinical understanding of the relation of the clinical laboratory to the study and diagnosis of disease if the phrase "laboratory tests" were discarded in favor of "laboratory examinations", as better expressing their true place and function.

The reaction to disease is not a phenomenon or a set of phenomena solely dependent upon the disease but is regulated and influenced by the ability of the patient who has the disease to react to the stimuli it exerts. There are, therefore, no set formulas for the reactions discoverable by laboratory examinations as all will be governed by the capacity and idiosyncrasies of the patient upon whom the examinations are made.

The first step toward practical and informative utilization of the resources of the clinical laboratory is to select, from the multitude of methods available, those which are the more apt to elicit information of clinical significance; the second step involves a clinical understanding of the sources of possible error and also of the various factors capable of influencing the reaction.

It is of little practical value, for example, to order a gastric analysis solely because the patient vomits or to determine the urinary chlorides to confirm or disprove the presence of nephritis.

The success or failure of laboratory examinations depends, to no small extent, upon the proper collection of the specimen. Blood chemical analyses are of doubtful value, for example, if the patient has had a hearty meal an hour before the specimen is collected; a smear is practically useless for microscopic examination if too thick to see through; sputum is material coughed up from the lungs, not a mixture of nasopharyngeal mucus. In a word, unless the specimen is properly collected and prepared it cannot be carefully examined with results that are capable of furnishing information of clinical value.

Laboratory reports, it should be remembered, express merely the status quo and are applicable merely to the specimen at hand. They do not necessarily unveil the past and hold no guarantee for the future. The fact that a single voiding of urine shows no abnormality is not a certain indication that a 24 hour specimen may not show a trace of albumin and an occasional cast.

It may be mentioned here that, although sanctioned by custom, the morning specimen of urine is, all things being equal, the least valuable for examination as it represents the urine after a period of rest. If a 12 or 24 hours specimen is not possible, then the best is one taken late in the afternoon when the kidneys have borne the burden of the day's labor and excretion of the waste products of 2 meals.

*Minor abnormalities, and especially when they are persistent, are of more clinical*

value than extreme variations as leading to the detection of physical deficiencies before the patient is gravely incapacitated and so tending to safeguard him from preventable calamities.

The urinalysis is, perhaps, one of the most frequently utilized of laboratory procedures but not always the most wisely utilized. The laboratory is sometimes criticized because the clinician fails to understand its purpose or to appreciate the status of single specimens. For example, I once reported sugar in a urine and 4 days later found none—a finding incomprehensible to the clinician. On inquiry, however, it developed that the patient, who had diabetes, was in bed with acute cholecystitis and on a restricted liquid diet for 4 days—under which circumstances, the disappearance of the glycosuria was not remarkable.

A pyelitis, also, may empty itself in a gush of pus in one specimen and following specimens be relatively free of pus until the renal pelvis fills up again, and so on; all these being simple matters readily explainable and yet now and then a source of confusion.

Comparatively recent events emphasized anew the necessity for a clear concept of the significance of the Widal reaction. The Widal test is not a test for the presence of typhoid fever but a test for the presence or absence of agglutinins for the typhoid bacillus. If present they may signify: (1) that the patient has been vaccinated; (2) that he has had typhoid—recognized or unrecognized—in the past; (3) that he is a carrier of the typhoid bacillus; or, (4) when there is a concomitant acute infection the symptomatology of which is consistent with typhoid fever—and especially when repeated tests show a rising titer—that the patient is suffering with this disease. Of equal importance is the fact that agglutinins may be absent in the early stages of typhoid fever and, occasionally, not produced until late in convalescence. The Widal test, when positive, therefore, is not per se proof that the case is one of typhoid fever nor, when negative, indisputable evidence that it is not.



What possibilities for error in interpretation there are also in the blood count. Anemias, for example, cannot be satisfactorily followed by hemoglobin estimations alone, particularly when made by some rough method with a wide margin of error, nor is it safe to rely upon the total leukocyte count alone for the study of a suspected surgical emergency. The patient may be overwhelmed and unable to produce a leukocytosis or, as in a child, the leukocytosis may be disproportionate to the cause and misleading.

Every leukocyte count should mean a simultaneous differential count and, if for argument's sake one were restricted to a single drop of blood, then it should be used to make smears for, from the study of a well-made, well-stained smear, the skilled observer can determine the characteristics of the red cells, and the differential count and hazard an approximate guess as to the amount of hemoglobin and the presence or absence of a leukocytosis.

To illustrate the value of correlated studies a case of traumatic intestinal perforation may be cited in which the physical findings were absolutely nil and the patient wanted to return to work. The total leukocyte count was 9000 but the differential showed 98% of neutrophils and operation revealed 2 small perforations.

A total count of 60,000 with 80% of lymphocytes looks like lymphatic leukemia unless we know that the patient is a child of 6 years, who has had pertussis, and was treated with pertussis vaccine; when the tendency of children to react to slight stimuli with a disproportionate leukocytosis; the fact that there is a normal lymphocytosis until 10 years of age and the further fact that pertussis produces a lymphocytosis *per se*; at once clears up the situation.

The situation created by malinterpretation and misuse of the Wassermann test and the flocculation tests in the serologic study of syphilis has been commented upon by many writers in many places and opens up too wide a field to be touched upon here.

In a very cursory, general, and incomplete fashion these are some of the difficul-

ties which beset the clinical utilization of the laboratory in the study of disease. What shall be said of the remedy?

Suggestions to this end may be made under these headings:

- (1) Proper selection from the many methods of laboratory examinations those most likely to supply information of clinical value. In other words, laboratory requisitions should be preceded by a marshalling and segregation of the diagnostic possibilities; should be based upon the inherent probabilities of the particular case, and an understanding of the pathologic mechanism involved in the production of the clinical phenomena, and designed to furnish evidence for or against the probable diagnosis.

- (2) The specimens should be properly selected, and collected, and examined by qualified individuals.

- (3) The results of the examinations, which constitute only a part, a *phase* of a thorough study, must be interpreted in conjunction with *all* the information, by whatever means obtained.

As tending to the fulfilment of these desiderata, I can do no better than to repeat here what I have previously said in another place:<sup>(3)</sup>

"It is very obvious to the conscientious practitioner of medicine that the day of the man who knows it all is past, and while, to a certain type of mind, there may be some satisfaction in the assumption of omniscience for the benefit of the gaping multitude, some pabulum for the vanity in the thought that 'still the wonder grew that one small head should carry all he knew', the reputation so founded is built upon sand and but the wonder of an hour.

The scientific practice of medicine revolves around the formation of a diagnosis. The formation of a diagnosis, with the subsequent elaboration of an intelligent plan of treatment, evolves from the collection, analysis, and correlation of minutia, of data procured by various means and from diverse sources. It is essential, therefore, for the physician to be familiar with the means, methods, and sources for acquiring this necessary information and capable of util-

izing and applying the interpreted results to the problem at hand.

It is apparent to the most casual observer that the busier the practitioner, the more often he will require a varied investigation of his cases; and the less time, to mention only one requirement, will he have available to collect at first hand the information sought. The more necessary will it become, then, for him to utilize the specialized services of skilled associates. We may expect of him that he shall suspect the existence of a neurologic condition or the presence of a malignant neoplasm, but we cannot demand of him in all contingencies the specialized training necessary to render a possible diagnosis absolute. It may, however, be demanded that he shall take advantage of all means available to establish or rule out a diagnostic possibility, as, for example, by consultation with a colleague of particular skill in such matters, or through utilization of the various avenues of laboratory investigation of significance, pro or con. It may even be said, all things being equal, that one index of the thoroughness with which a diagnostic problem is studied is the degree to which the resources of consultation are utilized, the care with which every possibility is investigated.

To seek corroboration or elimination of a possible diagnosis is not a confession of ignorance but a manifestation of wisdom; to pretend knowledge in the face of doubt or to neglect a thorough study is little less than criminal.

Considering the care with which consultants are, or should be, chosen, the value justly given to skill, training, past experience, and general reputation, one is sometimes at a loss to explain the carelessness attendant upon the selection of a clinical pathologist by the average general practitioner. He who selects his surgeon, his radiographer, with meticulous care chooses his laboratory consultant haphazard. Perhaps this is due, in no small measure, to an ill-advised confusion of the laboratory and the pathologist, to the habit of looking upon the two as synonymous and interchangeable terms, whereas nothing could be further

from the truth. The scalpel and the surgeon or the radiographer and his apparatus are not transposable, though one is complementary to the other, and the same is true of the clinical pathologist. The clinician should demand of the pathologist not only the training and skill required to insure accurate and reliable findings, but, in case of need, the ability based upon experience, reading, medical education and clinical training necessary to render him available as a consultant, either from the standpoint of indicating the plan of laboratory approach most likely to be informative, or of assisting in the clinical evaluation of the results obtained.

Unfortunately for the practitioner who carelessly casts his laboratory work to the winds; who chooses because it is labeled 'laboratory'; because it is near by, pretentious in appearance, or persistent in self-adulation; the necessity for extensive use of laboratory methods has resulted, by what Webster has called 'the fearful concatenation of circumstance', in a mushroom growth of 'laboratories' not always indicative of nor accompanied by the coincident presence of a clinical pathologist, by which term is denoted a physician of clinical training and experience devoting himself to pathology as a specialty. All too often the 'laboratories' clamoring for the physician's 'business' are entirely lay owned and lay manned, seeking by an obtrusive display of glittering apparatus and the clamorous use of technical patter to 'varnish nonsense with the charm of sound'. To him who, unthinking, holds the test to be the thing; who believes that technicians can be trained in a few weeks to cover the entire range of laboratory procedures, the words of Oliver Wendell Holmes may be recalled, 'Knowledge, like timber, should not be much used until it is seasoned'. The practice of clinical pathology is the practice of specialized medicine, and the technician can no more replace the clinical pathologist than the nurse or the first year student can supplant the physician.

The training of technicians is restricted entirely to methods, and, just as the clinician places the responsibility for his opera-



tions only on the surgeon, so should he place the responsibility for his laboratory studies only on the clinical pathologist. And just as he chooses his surgeon on the sole basis of skill and experience, so should he demand equivalent qualifications from his laboratory consultant. He should appreciate, also, that to the layman the laboratory is merely a business, while to the clinical pathologist, it is a profession of equal dignity and learning and subject to the same ethical and professional responsibilities as any other branch of medicine. The man who calls the laboratory on the phone to discuss a report or talk over a case should realize that he is in consultation with a professional colleague and should demand that this be the case and not find himself debating professional problems with lay technicians who may later, perhaps, be "consulting" with a cultist or even a quack. The practitioner should always be in a position to know who does his laboratory work and be fully cognizant of his training and ability. Less than this is an injustice to the patient and an indictment of the physician."

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## FACIAL RECONSTRUCTIVE SURGERY

With presentation of cases and lantern slide demonstration.

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Reconstructive surgery of the face deals with the anatomic and functional correction of congenital and traumatic deformities and those resulting from infections. This type of surgery is far from being new. Even in ancient times surgeons were

concerned not only with the removal of diseased tissues but also with the repair of postoperative defects, and the treatment of congenital and acquired deformities; thus Celsus, who lived before the Christian era, described his method for correction of cleft palate.

In the sixteenth century Ambroise Paré and Tagliacozzi described surgical methods in this field, which are still of great interest to us. Tagliacozzi's, or the so-called Italian, method in rhinoplasty is classical and continues to be in use without great modification. (Fig. 1). The writings of Carpué,



Fig. 1.—Illustration from Tagliacozzi's work, published in the sixteenth century.

Duffenbach, von Langenbeck, Thiersch, Reverdin, Shimanowsky and many others prove that the study of facial reconstructive surgery was pursued unremittingly during the entire nineteenth century. The results, however, were far from encouraging, as is shown by the saying of Denonvillier, a distinguished surgeon of those days, that in rhinoplasty "the surgeon only substituted ridiculous infirmity for a loathsome deformity". It was only when a large amount of material afforded by millions of facial wounds had become available in the World War, that the different methods could be applied, followed up and standardized. Large centers of maxillofacial reconstructive surgery were organized in all the armies and it was only after years of this work that more or less definite methods were developed.

We continue at the present time to apply our knowledge gained in the late war to the treatment of everyday deformities. Many of these deformities may be avoided and I should like to insist on this point, which seems to me to be much neglected in works dealing with this subject.

In these days of prophylactic medicine, it seems natural that some attention should be given to the prevention of facial deformities. It is, therefore, very necessary that the fundamental principles of the subject should be made known to the general public. How many traumatic and postoperative deformities of the face could be avoided if the medical profession at large and the public knew more about this line of work. The laity should know enough about the prevention of facial disfigurements to avoid the omnipresent quack and all the disasters that follow "beauty cures".

Postgraduate work in this line is needed, and courses on this subject have been arranged by us at the Cincinnati Medical School, and in connection with the King's County Medical Society; similar work is being started at different medical centers here and abroad.

#### TRAUMATIC NASAL DEFORMITIES

Nasal injuries are extremely common on account of sports, which have such an important place in schools and the whole life of the nation. These, as well as automobile accidents and industrial injuries, are the usual causes of nasal fractures. The injuries are generally not seen at the beginning by the qualified reconstructive surgeon, and too often indifferent methods of treatment are applied. As the pain in the fractured region is always acute on palpation the patient listens with a complaisant ear to the advice to postpone reduction of the fracture to a later date. Very often also, the nasal fracture is masked by edema and an early diagnosis is not made. A radiograph is always useful in case of doubt, when the displacement of fragments is slight.

The treatment of recent fractures of the long bones is standardized at the present

time throughout the world. Immediate reduction and immobilization of the fragments is considered urgent. The anatomic and functional restitution of the fractured parts is the principal care of the surgeon. Why such a difference of opinion in regard to nasal fractures? Are function and shape less important in the nose than in the arms or legs? The nasal obstruction that follows a badly set nasal fracture compromises the normal function of the middle ears, the respiratory tract and eventually the entire body. A permanently disfigured face is certainly not less damaging to the individual than a malposition of a fracture of the arm. Left to themselves, these bony fragments become fixed in a vicious position by the exuberant callus. The escaped blood organized during the first week and the cicatricial tissue, which results from it, render late reduction in the course of the second week quite difficult. The fractured fragments should be carefully kept in connection with the periosteum. If enclosed, they should be mobilized. The fractured or luxated septum should be replaced with the same care. Systematic endonasal packing will maintain the fragments from within. A copper or lead splint prepared after a pattern must be applied externally.

The correction of an old nasal fracture is far more tedious. No correction of this deformity is possible without resection of a fragment from the frontal process of the maxillary bone on the flat side, and the infraction on the opposite side of the nose. The latter is thus easily replaced into the normal position and immobilized.

#### NASAL DEFORMITIES AFTER SUBMUCOUS RESECTIONS

Deformities very frequently occur after a submucous resection of the septum, and this should all the more be taken into consideration as this operation is one of the most frequent nasal surgical procedures. The deformity which results is generally very conspicuous, and as it closely follows the operation, the relation of cause and effect is evident to the patient. In the majority of cases, the operative technic is at



fault. The details of this subject were described by me elsewhere and here I wish only to make the following remarks:

On account of lack of reinforcement of the septum by the triangular cartilage immediately above the nasal tip, the remnant of the cartilaginous bridge, if insufficient, is liable to break down under the slightest trauma and a dorsal depression follows. The cartilaginous bridge after a submucous resection should be at that level at least  $\frac{1}{2}$  in. high. The free edge of the quadrangular cartilage forms a part of the pillar for the nasal tip, and if resected at one of its ends, produces a flattening of the nasal tip.

Indirectly, an acute or chronic nasal infection during a submucous resection may cause a postoperative nasal deformity through involvement of the operative field and necrosis of the remaining cartilage. The nasal condition should, therefore, be thoroughly investigated before operation, which should be postponed in the presence of free pus or acute catarrh.

After a submucous resection, the 2 plates of the mucosa are to be held in place for 24 hours by a metal splint, which we always apply to assure a uniform pressure and avoid the formation of a hematoma with resulting infection. Plugging of the nasal fossa and pronounced discomfort are thus avoided. It goes without saying that in so doing we add to the advantages mentioned above the free circulation of air in the middle ear, and the absence of stagnation of pus in the nasal cavities and pharynx with possibility of descending infection. When a postoperative deformity appears (dorsal depression or flattening of nasal tip) its correction is the same as in the congenital deformities of the same type, about which we shall speak later.

#### CONGENITAL NASAL DEFORMITIES

As the nose is the most distinctive feature of the human face, the least deviation from normal produces a change in facial expression. Partial or total defects of the nose are among the worst deformities that

exist. Deformities of the ear, the forehead or the chin may be masked, but those of the nose are always striking. Therefore, it is not surprising that the minds of those patients are anxiously fixed on their deformity, causing mental depression. They are handicapped in their work and social life, and their mental distress exaggerates in their minds the importance of their physical deformity. In the past, because of their mental depression, these patients were considered hypochondriacs and the necessity of cosmetic operations was questioned. At the present time, corrective rhinoplasty is able to produce very successful results. Comparing the contour and expression of patients' faces with their preoperative photographs and casts, will enable you readily to realize the moral, professional and social importance of rhinoplasty.

#### CARDINAL PRINCIPLES OF OPERATION

Local anesthesia is the rule in these operations. Ordinarily, I use the endonasal route. The nasal cavities should, therefore, be carefully examined, and infection excluded before operation. In case of a chronic infection (ozena, sinusitis), the external route is preferable, with incision in the columella or eyebrow. In an oversized nose, the length, height and the width, should all be taken into consideration, and the remodelled nose made in complete harmony with the entire face (Fig. 2). *An artistic sense is not less needed in this work, than a perfect technic.* The osteocartilaginous prominence of the nose is removed with a saw. This correction can be made also by the removal of triangular fragments on each side from the frontal processes of the maxillary bones and the septum. It is the procedure of lowering the dorsal prominence.

Auricular or alar cartilage may be of good service in the correction of small nasal depressions. Costal cartilage is used by me as a rule. Ivory, which I tried for a long period of years experimentally and clinically, has its indications as a nasal



A—Before.

B—After.

C—After.

Fig. 2—Oversized nose in which the length, width and height were remodeled in harmony with the face.

transplant, if the patient refuses to provide his own cartilage (Fig. 3, 4). A syphilitic deformity should no longer exist, if early and intensive antiluetic treatment is applied. The characteristic appearance of a luetic

form aperture. Correction of this type of deformity simply by introduction of a cartilaginous transplant will not be satisfactory as it is incomplete and the luetic appearance of the nose remains unchanged.



Before.

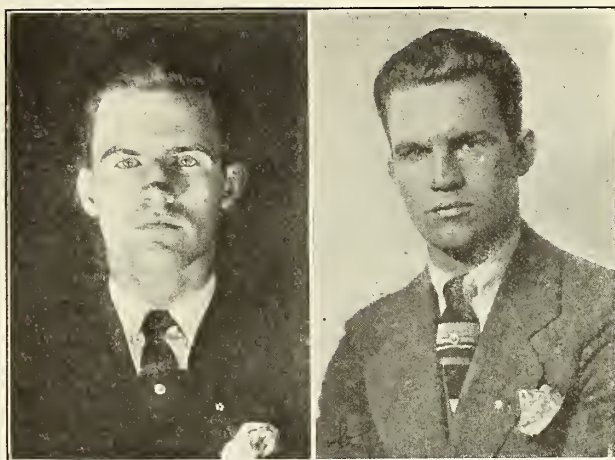
After.

Fig. 3.—Congenital saddle nose corrected by an ivory transplant introduced through the eyebrow; patient having refused to provide his own cartilage.

nose is due to a more or less extensive necrosis of the nasal bones with great loss of the mucuous membrane lining. In these cases, the skin cannot be sufficiently undermined for introduction of the transplant, because of adherence of the cicatricial mucous membrane in the region of the pyri-

Epithelization of the nasal cavity by a Thiersch graft, introduced by means of a moulded piece of stent, presents the first stage of the correction. The cartilaginous graft is introduced some months later. This method, the only one that overcomes the luetic aspect of the nose, gives





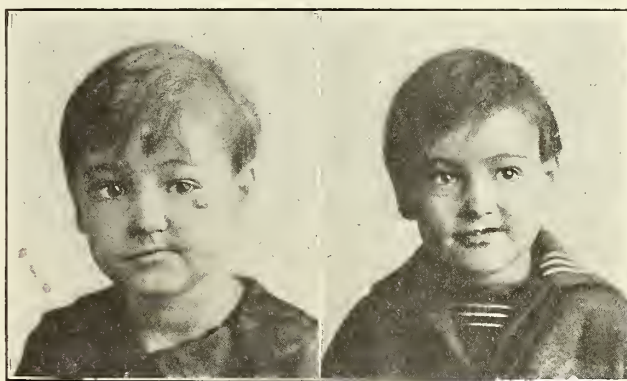
Before.

After.

Fig. 4.—Acquired nasal saddle deformity due to an old fracture. Correction by a transplant introduced through the left eyebrow.

perfect results, but requires much time from both patient and surgeon. This procedure, which was brought out by Gillies in applying the principles of Esser's epithelial inlay, may be also used with success in the treatment of stenosis of the nose, ectropions of the eyelids and lips, and deepening of the gingivolabial cul-de-sac (Fig. 5).

low vitality of the tissue. The lining was the key to success of rhinoplastic efforts during the war. All failures of pioneers in nasal reconstructive surgery, which could not be overcome during many centuries and up to the beginning of the World War, have been due to omission of considering the nasal lining. Even last year, during our



Before.

After.

Fig. 5.—Dentigerous cyst of left antrum with necrosis of walls. Postoperative retraction of lip released by Thiersch grafting.

For correction of luetic nasal disfigurement with partial or total loss of the organ, the same methods are applied as were employed for extensive nasal injuries during the war. The difficulties, however, are increased in lues because of endarteritis and

visit to Paris, we saw some old cases of total rhinoplasty made at the beginning of the World War by the old method which did not provide sufficiently for the nasal lining. All of these newly rebuilt noses have been completely obstructed and have

lost their shape. The nasal lining has to be provided from the skin around the defect or by an epithelial inlay, as explained above.

### HARE-LIP

The technique of this operation is described in all surgical text-books. But even after operations by the most skillful surgeons, we still often see a deep notch of the lip, with flatness of the latter. It is also necessary to mention the hare-lip nose, characterized by flatness and a lowering of the corresponding nostril. The notch of the lip, which is particularly conspicuous, may be corrected by dissection of a mucous membrane flap from the posterior surface of the lip. The flattening of the nostril is corrected by incision of a thromboidal fragment of vestibular skin, and suturing of the nostril near the columella. Pronounced flattening of the upper lip is often observed in a repaired hare-lip. It

liarities of the paraffin and susceptibility of the patient. There were frequent reports of emboli, especially of the central artery of the retina, chronic inflammatory reaction and diffusion of the injected paraffin in the surrounding tissues. These were due to the use of liquid paraffin with a melting point of about 100° F. Solid paraffin with a melting point of about 140° F., although prized at the beginning as being safe, turned out to be dangerous by its late complications, namely, the formation of tumors called paraffinomas. Anyone who has seen a case of this kind, I am sure would dismiss the use of paraffin. Applied for the correction of depressed noses or cheeks, paraffin may give good results in certain cases, but in the course of time, varying from 3 to 10 years, the paraffin may be displaced and infiltrate the subcutaneous tissues and the skin. A hyperplasia of connective tissue is formed around the injected



Before.

After.

Fig. 6.—Sequel of hare-lip operation performed in early childhood. Result after plastic sliding of a triangular mucous membrane flap and tattooing the overlapping skin fragment.

can be corrected, when a denture is worn by deepening the gingivolabial sulcus in which the gum of the denture is placed, thus making the lip to protrude.

### PARAFFIN TRANSPLANT

Paraffin was utilized for the first time as a medium in facial reconstruction about 1890, by Corning of New York, and later by Gersuny of Vienna. Its use at that time became the vogue and it was employed especially for cosmetic purposes on the face and chest, as well as in rhinology to narrow the nasal fossa in ozena. However, one soon found that along with immediate success, one also encountered numerous accidents and frequent failures due to pecu-

mass, which undergoes a complete transformation. One finds hard painless masses infiltrating the skin, subcutaneous tissue and mucous membrane of the mouth. The skin is shiny and sensitive to changes in temperature. The contour and expression of the face change and become very conspicuous. Microscopically, the mass shows cellular elements, surrounded by inflammatory tissue. The paraffinoma does not necessarily follow the injection of paraffin. This tumor needs for its development a predisposing soil, which it is impossible to recognize in advance.

### EAR DEFORMITIES

Most common are protruding ears. Their



correction is brought about by the excision of cartilage and skin, usually from the concha, with removal of the resulting folds on the anterior surface of the ear. Other deformities which require correction are hypertrophy of the ears (macrotia), abnormally shaped ears, synechia and postauricular fistulas after mastoidectomy. Correction of the total absence of an ear is the most difficult task, because of the irregularity of the organ.

#### SKIN DEFORMITIES

Such abnormalities are a source of keen distress to thousands of women. Everything goes the way to death by a progressive decline, but for one who dies of old age, a hundred die of accident or disease. If we cannot avoid death, at least we can retard it by preventing accidents and infections which hasten it. These generalities apply to the life of the skin, especially of the facial skin, the latter being

exposed and less protected than the rest of the body. Very cold or hot air, wind or rain are harmful, and if we add to this the influence of cosmetics used by women since their girlhood, we will have the cause of a prematurely injured skin, which is creased and flabby. A personal predisposition plays also an important rôle. Professional and social reasons make these patients require help. The so-called facial lifting is indicated especially for women prematurely aged with a very flaccid and a drooping skin. The excision of the skin should always be done in the periauricular region, largely hidden by the hair.

A complete undermining of the skin is necessary. The insertion of subcutaneous fascia loops is sometimes indicated to efface the folds. The results obtained in these patients are often amazing, and their mental and professional status is thereby greatly improved (Fig. 7).



Before. After.  
Fig. 7.—“Facial lifting” by periauricular excision of redundant skin.

#### CONCLUSIONS

(1) The field of facial reconstructive surgery is growing rapidly, as its value becomes evident to medical and public opinion.

(2) Prophylactic measures in this field will avoid unnecessary deformities.

(3) As a rule, nasal deformities have to be corrected by the endonasal route.

(4) Skin, cartilage and fat are the best transplants in rhinoplasty.

(5) Paraffin is to be condemned, as are

all other inorganic substances. Ivory, as a dead organic substance similar in structure to bone, has its indication as a substitute in some instances.

(6) Aged and flabby facial skin can be surgically corrected in women for professional and social reasons.

(7) A thorough rhinologic and general surgical training, together with some artistic inclinations, are necessary requirements for this work.

## SYMPOSIUM

### Focal Infections and Head Surgery

(The following 3 papers were read in symposium at the Academy of Medicine of Northern New Jersey, January 19, 1927, under the auspices of the Section of Eye, Ear, Nose and Throat Diseases.)

### SOME OF THE OPHTHALMOLOGIC ASPECTS OF FOCAL INFECTION

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It is only during the past decade that ophthalmologists, as well as the rest of the profession, have become familiar with the term "focal infection" and fully aware of its importance as an etiologic factor in many previously obscure conditions. It has thrown a flood of light into many dark corners, and has gradually displaced our good old popular and handy friends, "idiopathic" and "rheumatic".

Those of us who were practicing ophthalmology 15 or more years ago well remember how helpless we felt when confronted by certain cases of iridocyclitis, iridochoroiditis and recurrent iritis, which were not due to syphilis; how we groped blindly for the cause of the trouble and how often futile were our efforts to prevent partial or total blindness in the affected eyes. We now know that many of these cases, probably more than 50%, are due to septic foci somewhere in the body, and that discovery and eradication of the focus or foci means prompt cure and, if permanent damage has not already been done, *restitutio in integrum*.

A review of the literature previous to 1916 shows that very few writers recognized the importance of the relationship between acute and chronic infections of the uveal tract and a septic focus in some other part of the body. There were a few notable exceptions. As long ago as 1913, at the Ophthalmological Section of the International Medical Congress in London, de Schweinitz<sup>(3)</sup> expressed the opinion that every case of uveitis was of septic or toxic origin, and that we should discard the term "rheumatic iritis". In 1914 Zentmayer<sup>(2)</sup> endorsed this statement. In 1915 we again find

de Schweinitz<sup>(3)</sup> speaking more emphatically on the importance of a thorough search for focal infections about the roots of the teeth, in the nasal accessory sinuses, tonsils, prostate, intestinal tract and other locations. At that time he said, "To fulfill the obligations of modern practice it is necessary that uveitis or iridocyclitis shall be studied thoroughly, not merely in relation to its local manifestations, not merely, too, in relation to a probable underlying constitutional difficulty, but especially in an endeavor to ascertain the position of focal infection which may be the origin of a toxemia of which the patient is the subject, and which in the eye finds one of its many interpretations. In other words, to use Mr. Beaumont's apt sentence, "The dethronement of iridocyclitis from the position of an independent disease to the secondary one of a complication", must be kept constantly in mind. Such focal infections, in the language of Rosenow (quoted by Henry Ludwig Ulrich in an excellent and suggestive article), "are no longer to be looked upon merely as a place of entrance of bacteria, but as a place where conditions are favorable for them to acquire the properties which give them a wide range of affinities for various structures".

The pioneer work of Rosenow<sup>(4)</sup> concerning the transmutability of certain pathogenic organisms and the acquisition of selective tissue affinity of bacteria in foci of infection, together with the teachings of Osler and pertinent observations of several British writers<sup>(5, 6, 7, 8, 9)</sup> laid the foundation for the awakening of interest in the subject. Since this awakening medical literature, particularly that of ophthalmology, rhinology and dental surgery, has been more or less replete with contributions.

The larger number, by far, of foci of infection, are located in the mouth and upper respiratory tract, because here are numerous blind pockets, spaces and cavities which afford favorable conditions for propagation and growth of pathogenic bacteria, and because these parts are constantly exposed to infection by food and air. While the teeth, tonsils and accessory nasal sinuses are the most frequent sources of infection, we should not forget other occasional locations of foci such as the



prostate, intestinal tract, pus tubes and gall-bladder. Thomasson<sup>(11)</sup> and others, and more recently Zentmayer<sup>(12)</sup>, have reported cases of keratitis and uveitis resulting from focal infections, both venereal and nonvenereal, in the prostate.

Concerning the relative frequency of the various locations of infectious foci, the most reliable information is found in the very careful studies of Irons and Brown<sup>(10)</sup> on the etiology of iritis. Their 2 reports, of 100 cases each, while not intended to establish the exact incidence of iritis, are certainly informative. They found the following infections as probable causes in the 200 cases:

Infections	Alone	With Other Infections	Total
Syphilis	12	26	38
Gonococcal infection	8	2	10
Tuberculosis	8		8
Dental infection	12	15	27
Tonsillar infection	26	27	53
Sinus infection	1	3	4
Genito-urinary nonvenereal	6		6
Other infections	3		3
No infection found			3
Combined infections		41	41
Undetermined		7	7
	Total		200

According to these figures, at least 42% (teeth, tonsils, sinuses) of the cases were caused by focal infection. It is reasonable to assume that a number of the combined infections were focal in origin, and also some of the gonococcal infections. This would indicate that focal infection, according to these observers, is a cause of uveitis in at least 50% of cases.

That syphilis accounted for only 19% of these cases is interesting, in view of the teaching of a few years ago that over 50% of iritis cases were caused by this infection. For some time before seeing these figures I had noticed, both in private and hospital practice, a relative diminution in the number of cases of ocular inflammation of all varieties that could be charged to lues.

It is also interesting to note that these authors found twice as many cases due to tonsillar infection as to dental infection. My experience has been the reverse of this. I have seen many cases of uveitis, both mild and severe, and a few other ocular conditions, such as scleritis, keratitis and retinitis, clear up

promptly after the removal of foci of infection about the teeth or in the tonsils, but the dental cases have outnumbered the tonsillar cases fully 2 to 1.

Many of the cases were of the type which formerly, before we were awake to the importance of focal infection, went on for weeks and often months, their cause never being discovered, and resulting in more or less severe damage to the affected eye. We still have such cases, but not as frequently. The discovery of the source of the infection is often easy, but in other cases difficult or impossible.

In private practice the expense of a thorough search for an obscure infection is often an obstacle, requiring as it sometimes does the services of the roentgenologist, the rhinologist, the urologist and the internist, together with various laboratory examinations. Sometimes even when definite pathologic conditions are discovered, patients will refuse proper treatment, thinking it unnecessary or too radical. Again we may find in the same patient several possible sources of infection, for example teeth, tonsils and prostate, or we may find one focus and overlook others.

One of my early cases of recognized focal infection was in a man, aged 36, referred to me in 1915 by a urologist who had in the past treated him for gonorrhea. During the previous 5 years he had had 3 attacks of iritis, evidence of which existed as fine deposits of iris pigment on the anterior surface of the lens. Since then I have had his eyes under more or less constant observation. There have been many attacks of iritis; some severe, and others only abortive flurries. All sources of infection were excluded by competent investigators except the teeth and tonsils. Wassermann tests at various times were always negative.

The teeth were x-rayed and otherwise examined several times. On two or three occasions abscessed teeth were found and removed. The remaining teeth were finally above suspicion. This covered a period of several years. The attacks of iritis continued, but without damage to the vision, as the patient always came for treatment on the appearance of the slightest redness. For several years I had known that his tonsils were infected and had urged their removal. This he refused to have done. Finally, in 1924, after an attack of iritis in the right eye, he had the tonsils removed. The operation was done in New York and I had no pathologic report, but they were said to have been "badly diseased".

Since then, now over 2 years, both eyes have been quiet.

It should be remembered that a constitutional infection, such as syphilis or tubercu-

lisis, does not preclude the possibility of focal infection being the etiologic factor in an eye inflammation.

Nine days ago a man, aged 30, came to me with a fairly severe iridocyclitis in each eye. The left eye had been red and painful for 10 days, and the right had been likewise affected for 3 or 4 days. No history of lues. In each eye there was deep pericorneal injection; the eyeballs were tender; tension was normal; there were numerous posterior synechias, so that the pupils dilated only partially and irregularly. There were a few brownish punctate deposits on Descemet's membrane of the right eye (many smaller ones could be seen with the slitlamp and corneal microscope), and the cornea of the left eye was becoming hazy because of many white striate opacities in the deeper layers. R.V. 20/40; L.V. 15/200. The tonsils were of the so-called buried type, enlarged and undoubtedly diseased. The left lower molar looked suspicious; it was removed 2 days later and found to have an abscess about one root. A reliable dental examination revealed no other diseased teeth. The blood Wassermann was strongly positive.

Aside from focal applications, including frequent instillations of atropin and two subconjunctival injections of atropin and epinephrin, there was no treatment except the extraction of a diseased tooth, yet within 48 hours the eyes showed very great improvement in every respect and 3 days later, that is, 5 days after the tooth extraction, the right eye was entirely free of redness and there was only a little in the left; both pupils were fully dilated and round; no more precipitates had been deposited on Descemet's membrane; the opacities in the left cornea had almost entirely disappeared; the medias were otherwise clear, except a few points of iris pigment on the anterior surface of the lens and the fundi were normal: R.V. 20/30; L.V. 20/40. The patient was thus well on the road to recovery one week after his first call. In this case we were fortunate enough to discover the real cause of the trouble immediately. The leucic and possible tonsillar infections probably played no part in the etiology as the ocular condition cleared up before any other treatment could be initiated.

Focal infection has been held by some writers to explain the occasionally severe reaction of an eye to a trivial injury. I have seen several examples of this. It is important in workmen's compensation cases, because of the doctrine of aggravation of a preëxisting condition by an injury.

Some time ago a young woman who was employed in a factory came to me with a beginning but severe and rapidly progressing exudative choroiditis and cyclitis in the right eye. She claimed that a small particle of some unknown substance had struck the eye a few days before, causing slight local irritation. There was an infected molar in the lower jaw on the right side, which the patient delayed having removed for 8 days. Following this the acute symptoms, which had been steadily becoming worse, subsided with startling rapidity, including the com-

plete clearing in a week of the posterior surface of the cornea, which had been thickly studded with the usual precipitates. However, irreparable damage had already been done to the choroid and vitreous. As so often happens in these cases, the lens later became opaque, and the compensation court made an award for total loss of an eye.

The presence of a focus of infection somewhere in the body also undoubtedly accounts for occasional severe reactions and complications, following operations on the eye. All such conditions should be looked for and removed before operating. This is particularly true of intra-ocular operations. Geo. H. Bell has repeatedly emphasized this point. Agatston<sup>(13)</sup> reported a case of focal infection iritis 9 days after a strabismus operation.

I want to record one other case of a remarkable cure in an apparently hopeless condition caused by focal infection. I saw the patient through the courtesy of Dr. J. F. Chatten, who kindly furnished the following history:

A man, aged 36, by occupation a tool maker, was first seen March 5, 1926, complaining of redness and blurring of vision for previous 3 days in right eye. First attack of iritis in left eye 20 years prior; one subsequent attack in left eye 3 years later. In 1915 had a recurrence in the left eye, at which time the vision was 20/20 and the patient was under treatment for syphilis.

Present condition: R.V. ability to count fingers at 1 ft. Complete occlusion of pupil by recent exudate. Several synechias. Tension normal. Diagnosis; uveitis.

Total occlusion of left pupil. Eye soft and totally blind from a former attack of uveitis.

Four days later 10 infected teeth were extracted. In addition to local eye treatments, milk injections were given. Wassermann and Pirquet tests were negative. The vision of the right eye began to improve in 3 weeks, and in August, 1926, had risen to 20/15, at which time there were still a few shreds in the vitreous. In October the shreds had practically disappeared, the eye was quiet, tension was normal and the vision 20/15. The patient was back at work as tool maker.

While I disclaim any undue enthusiasm over this subject, it is my opinion that the appreciation of the principles underlying the theory of focal infection and their application in every day work, has been the most important advance of this century in ophthalmology. I say this in spite of my many failures to uncover a supposed focus of infection or in other cases to get satisfactory results when some possible cause has been discovered and re-



moved. Some of the reasons for failure have been mentioned.

I want to say a word in regard to dental examinations. We all owe a debt to modern dentistry for its teachings in oral hygiene, particularly concerning the menace of chronic alveolar and root abscesses, the dangers of fixed crown and bridge work and for the invention of sanitary and safe prostheses as substitutes for these hot-beds of infection. But long ago I abandoned in all serious cases of eye inflammation where dental infection was suspected, the custom of sending the patient to the average family dentist for an opinion concerning the condition about the roots of the teeth. This kind of an opinion, in my experience, is reliable only when rendered by a dental surgeon who is constantly doing this class of work. The reports from the average general x-ray laboratory are also unsatisfactory.

It is equally important that examinations of the tonsils and accessory sinuses, the prostate and all other suspected sources of infection be made by skilled men. Without this efficient coöperation the best results cannot be had.

Is it too much to expect that during the next few years the incidence of this class of eye inflammations as well as many cases of cardiovascular-renal disease and certain joint and gastro-intestinal affections, will be materially reduced as a result of the early discovery and removal of foci of infection through periodic health examinations, systematic physical examinations in public schools, and other similar means?

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## THE EAR AS A FOCUS OF INFECTION

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It is really most amusing to read the various papers on the otologic aspects of this mad furor of focal infection. They all start out bravely enough and then gradually work into the complications of mastoiditis, or discuss blood stream infection of acute origin, or wander rapidly down into the tonsils, teeth and sinuses. We all remember "uric acid", "auto-intoxication", acidosis, and now it is "focal infection". To keep from getting into disrepute we must establish certain fundamentals and then, keeping our feet on the ground and our heads above the financial rewards, attempt to better the health and, through this improvement, raise the ethical standards of the race, so that we will not need to be legislated into morals. Focal infection presupposes a point of infection in which bacteria or the products of their metabolism, i. e., toxins, are elaborated, these bacteria or toxins then traveling through the lymph and blood streams to distant parts causing derangement of the physiology at these sites.

Following precedent, I will now divide my subject into 3 parts: (1) The acute ear as a source of infection. (2) The chronic ear as a true focus of infection. (3) A few words on the results of infection of the focal type upon the ear and its function.

In the acute ear there are 2 great types of infection, by the hemolytic and the nonhemolytic germs. When infection is caused by nonhemolytic organisms it spreads by continuity and takes an appreciable length of time before it can get into the veins and system. The inflammation gives nature up to 3 weeks to wall the process off, and, unless neglected, rarely causes grave lesions. However, should the inflammation be caused by a pneumococcus which produces the so-called painless mastoid, it is apt to mislead the observer by its lack of symptoms. This is the organism most frequently involved in direct intracranial extension, such as meningitis and brain abscess. This painless mastoid, however, always takes

a moderate amount of time to develop and is accompanied by a vague dulness in the ear and half headache worse at night.

The hemolytic types, however, such as the Friedlander bacillus, the hemolytic streptococcus (*Streptococci pyogenes* and *viridans* are hemolytic), come like a bolt from the sky. An attack of influenza or a streptococci sore throat is followed by an earache with a rapid rise of temperature, headache, delirium, and a continuous sequence of symptoms indicating an osteothrombophlebitis from the onset. In this infection one may have an aural bacteremia without involvement of a large vein, and polyarthritides has occurred with the isolation of a hemolytic streptococcus from the mastoid, the blood and the joints, where careful exploration absolutely eliminated infection of the large veins. Microscopic examination of the tissue removed in these hemorrhagic mastoids showed very real phlebitis and thrombosis of the minute veins.

This study brings us to one of the fundamental differences between a focus of infection and focal infection as commonly understood. When an infectious agent enters the blood directly, the whole force of the organism acts on it quickly with a good chance that it will be carried to some part of the body with sufficient resistance to develop immunity, whereas, if it enters the lymphatics, and is not overcome in the lymph-nodes, the infection may overflow into the blood at intervals or continuously and thus lead to a chronic systemic disease.

In this part of the paper I have tried to establish the difference between hemolytic and nonhemolytic infections, and to show the difference between direct blood stream infection and lymphatic infection.

In considering the ear as a focal infection we must remember that pus enclosed in any of the head cavities is for all clinical purposes one and the same problem, and that the ordinary forms of systemic infection are rarely met with in chronic suppuration of the ears. The reasons are, I think, three: (1) Because the ear is not a closed cavity, and it is only in truly closed cavities that the oxygen tension becomes so low that pathogenic germs take on their maximum virulence and selectivity. (2)

Because of the presence of oxygen, the saprophytes overgrow and destroy the virulent organisms. (3) Because true focal infection is lymphatic, not vascular, at its point of origin and the lymphatics about the ear are minimal.

To establish focal infection it seems necessary to accept the relative selectivity and specificity of organisms, to have a history of an acute infection, recent or remote, and to find palpable lymph-nodes which increase in size and tenderness with each acute exacerbation.

Lymphoid tissue is maximal in 2 regions of the body, the throat and the ileocolic region, and Davis in 150 pathologic tonsils found hemolytic streptococci in all but 2. It therefore follows that while any badly drained pus focus can produce arthritis and systemic manifestations, the teeth, tonsils, sinuses, bronchiectasis and gall-bladder and appendix are most apt to do so, and the ear may be placed among that group which, while it can become a closed abscess, is less likely to.

Why does the gonococcus choose the fibrous structure about the joint, while some streptococci always involve the synovial membrane and still others the cartilage producing arthritis deformans?

Why are titles such as the following appearing more and more frequently in the literature if there is not more than a casual connection between the germs that favor certain foci and the ensuing diseases? "Aural Focal Sepsis as a Source of Neurasthenia and Insanity." "Mania from Chronic Otitis Media." "Abnormal Ear Conditions in Patients with Mental Diseases." "Chronic Nasal Sinus Disease and Arthritis Deformans." "The Relief of Arthritis Deformans by Sinus Operation."

Series of rabbits up to 1600 have been injected with selected organisms with striking results as to specificity. Rosenow's work was done with about 150 rabbits. Recent work on erysipelas and scarlet fever shows definitely that these diseases are due to specific organisms belonging to the hemolytic streptococcus group, a fact which is strong evidence in support of the theory of selective affinity.

It would seem as though patients suffering from arthritis, neuritis, and degenerative diseases were highly sensitized to their own in-



fection; having once been involved in a beta hemolytic streptococcus infection, for instance, a condition of anaphylaxis develops and in every succeeding infection soluble toxins are absorbed directly into the blood stream to light up an exacerbation at the secondary focus..

Our views keep changing and perhaps the next 10 years will produce as great a change in our opinions as the decade just passed, and, for the good of the profession, focal infection is only tenable after all else has been excluded. It is an entity, not a catch all. In looking for a cause of symptoms we may not forget that the infections of childhood, syphilis and tuberculosis still leave their sequels. We may not operate on the tonsils, teeth, sinuses, without a diagnosis, and then if the patient returns unbenefited look for the real cause of the trouble. There are diseases not caused by focal infection. After reading many carefully worked up statistics, one doubts whether focal infection is the only or even an important element in arthritis or degenerative diseases.

Pemberton, with a skilled group of careful observers, ran almost a laboratory experiment, with 400 cases of arthritis, 27% of which presented no demonstrable surgical foci. Of the remaining 73% which showed definite foci, 46% recovered from the arthritis without surgical treatment of the demonstrable foci, while only 16% cleared up after surgery. Pemberton found in his arthritis cases that the glucose in the blood was not removed as quickly as it should be, and this predisposed to focal infection, as a high blood sugar would to any other infection. After removal of the focus the sugar tolerance usually went to normal and the arthritis cleared up; on the other hand, sugar tolerance went to normal as soon as definite convalescence set in, even without surgery. This introduces a metabolic factor that may perhaps be the true clue to the solution of our problem..

The third phase of my paper will take just a few words. The ear is not very representative as a focus of infection, nor are there many diseases of the ear caused by focal infection. The most notable results of focal infection within the ear must necessarily be manifested by changes in hearing or in equilibrium; an

acoustic neuritis may involve either the whole eighth nerve, or the cochlear or the vestibular branches alone. When it is selective, the nerve bundle always shows degenerative changes in a definite spot which is a phylogenetic or developmental area. This was pointed out to me by Dr. Eagleton.

There may be degeneration of the organ of Corti or of the spiral ganglion, Ménière's symptom complex may even be present, but the point brought out by Emerson, of Boston, in chronic progressive deafness of unknown origin needs special emphasis. A patient may become deaf either by a continuous progression of symptoms or by acute exacerbation, each increase being preceded by a definite infectious explosion with the condition remaining stationary between attacks. By taking a careful chronologic history, we can ascertain to which group our case belongs, and if to the type which grows markedly worse after a sore throat or when tenderness or a gum boil appears on a previously dead tooth, we may be sure that a careful elimination of foci of infection will materially delay the progress of the loss of hearing.

I am particularly impressed by these cases because they occur with moderate frequency, fulfill all the postulates needed to establish focal infection; the patients are very introspective and discouraged when first seen and are tremendously grateful for the help that elimination of foci of infection affords them.

In conclusion I would emphasize 3 points: (1) The difference in the onset of hemolytic and nonhemolytic infections, recalling to your minds the fact that there are hemolytic strains of staphylococci.

(2) The theory of focal infection assumes these conditions: (a) a partial selectivity and specificity of organisms, (b) a history of antecedent acute infection, and (c) a fundamental lymphatic extension, as shown for instance, by Mullin and Ryder. The antrum drainage is by way of the submaxillary nodes to the deep cervical nodes and thence by the cervical lymph ducts to the great veins and the right side of the heart, whence it goes to the lungs by way of the pulmonary artery and then only back to the heart and the general systemic cir-

culution after the infection gets by the pulmonary capillaries.

(3) For one miracle we seen many failures and disappointments, so if you do a radical operation for a minor complaint, you are taking an unfair advantage of the patient. But if the symptom complex fits into the postulates and a careful history and physical examination eliminate all other diseases, the results are most gratifying and you may rest in peace, enjoying the fruits of good work well done.

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## FOCAL INFECTION AS RELATED TO HEAD SURGERY

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Nonvital teeth are unquestionably a menace to the individual, as recent microscopic findings have conclusively proved that most teeth have minute and collateral canals emanating from the main pulp canal, and forming a meshwork at the apex of the tooth. It is practically impossible to fill or sterilize these little areas with the tooth in situ, and yet they harbor millions of bacteria. We must also remember that many of these teeth present no areas of infection roentgenographically, and still, upon culture, show virulent infections in 85-95% of cases. This briefly explains why most retained devitalized teeth are failures, with subsequent alveolar abscess.

Unfortunately too few dentists realize the advantages of preventing the development of a lesion over undertaking its correction or cure, not appreciating that lesions become irreparable and constitute a permanent and often progressive dysfunction. The dentistry of today and of the future must be fundamentally based upon a foundation of pathology rather than one of mechanical skill, the problem of tissue involvement being the most vital consideration. Many times it is too late, when the damage is discovered, to be of any great assistance to the patient.

Unquestionably, dental infections produce

degenerative diseases, and the removal of teeth is frequently of no value whatever, even when the teeth have been the direct cause of the existing condition, for the reason that either the condition has advanced to a point where it is practically beyond repair or the infectious processes are permitted to remain in the bony structure after the teeth have been extracted.

Only too frequently we encounter cases in which the infected teeth have been removed and old cysts, granulomas and necrotic conditions are left remaining in the jaws; consequently, the patient shows no improvement. When these conditions are x-rayed and thoroughly eradicated, the physician then procures the result that he had wished to attain when he recommended the removal of the teeth, expecting that all infectious processes would clear up at the time of extraction.

Proper diagnosis and proper elimination of infection demands initial roentgenographic examination, and without roentgenograms no dentist can assure the patient or physician that possible contributory infections in the oral cavity have been eliminated. These foci are often the most dangerous of all lesions as they are free from symptoms, are closed off by bony structure with little or no expansion, and cause constant absorption.

I do not wish to convey the idea that I believe dental infections to be the only source of systemic troubles, but at the same time I would like to suggest that a great majority of adults are carrying seriously infected teeth, potentially capable of producing degenerative diseases in the absence of adequate defense.

I will mention some conditions which in the opinion of our profession are due to dental infection, and which have been greatly benefited by its removal. We believe that infected apical areas from nonvital teeth are not the only reason for occasional involvement of the antrum from oral conditions. This sometimes occurs from a pyorrheal pocket which eventually opens into the antrum along the course of the root of a tooth, even when the tooth retains its vitality. We believe that when an antrum is found to be involved, and a very obnoxious odor is present, this involvement is frequently from a gangrenous pulp in a non-vital tooth pouring its toxins into the antrum.



We are of the opinion that in such cases the presence of such an odor should be to a degree suggestive of tooth infection as the primary cause.

In many cases of infected tonsils we are of the opinion that tooth conditions are the primary cause. We have observed a number of cases where numerous abscesses are present in the mouths of young children. We hold that these infections should first be eliminated, and that tonsillectomy, as frequently practised, is illogical until the condition of the teeth and oral cavity has been corrected. This conclusion is based on the fact that the lymphatics of the mouth and jaws drain into the tonsils, and we have seen some infections of the tonsils improve, or even disappear, after the removal of mouth infections, provided of course, the infection in the tonsil has not been of too long standing.

Among the conditions that may be prevented by early elimination of tooth infection are iritis, retinitis, optic neuritis, disturbances of accommodation, chronic neuralgias, osteomyelitis and allied troubles. Under this heading the impacted and imprisoned tooth, with frequent nerve impingement, must always receive our careful consideration.

There are some cases in which the conditions, once established, may never be relieved and may constitute a permanent lesion. Among these are chronic optic neuritis, chronic iritis where the iris and lens may be seriously involved, arthritis deformans, and various heart lesions.

One of our greatest difficulties in combating focal infection will be the raising of the defensive mechanisms of local tissue cells in a host in whom they are depressed or absent. We fully realize the marvelous ability for adaptation of the bacteria present in dental foci of infection; consequently, the 2 most hopeful methods of relief may be development of more efficient vaccines and a clear understanding of early pathological conditions in the mouth, and an educational system whereby the patient may be brought to a realization of the necessity for early discovery of focal infection and prompt elimination of this detrimental factor.

## RING WORM INFECTION OF HANDS AND FEET

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(Presidential Address to the Passaic County Medical Society, December 9, 1926)

For many years it has been the custom at the annual meeting of this Society for the retiring president to deliver an address. In the early days doubtless the sage who presided looked down upon the eager youthful physicians gathered before him, as the father looks at his family or the teacher at his pupils. His privilege was to recount the events, to analyze the scientific and other work of his presidential year, to become philosophic, and to give of his wisdom such advice and council for the future that the pitfalls of inexperience might be avoided by his hearers. In these days, when there is no old age, and middle age flaps with its sons and daughters, philosophy and counsel have ceased to be fashionable, and I have taken the liberty of side-stepping the old type of annual address to present to you something different.

My subject is "Ring Worm Infection of the Hands and Feet". For some years, and especially since the late war, physicians have been seeing enormous numbers of people with dermatoses of the hands and feet, and it is to this particular condition that I wish to draw your attention for a few minutes. Dermatology, as you know, is one of the newer specialties, and it has been called, not without good reason, a science of names. Dermatologists have too often been content to give a descriptive name to a dermatosis, and then treat it empirically. Etiology has been neglected, and therapy, therefore, weak.

Among other conditions, the inflammatory diseases of the hands and feet have fallen in large part under the heading of "eczema", and only recently has investigation brought out the facts as to what we have for many years called dysidrosis and dysidrotic eczema, and showed that many, if

not all of these, are ring worm infections. Large numbers of men in our war-time army were absolutely incapacitated for combat service by this condition. Since the war, it has become a still more serious problem, and one which has been a sore spot in the practice of dermatology.

Clinically, these cases present themselves in one of 3 general types. First, the superficial or deep vesicular type characterized by vesicles from pin-head to sago size appearing on the fingers, palms, toes and soles, or in some cases affecting both hands and feet. This type is very apt to appear when there is marked hyperidrosis, and is seen most frequently during the summer. There is marked burning and itching, and unless cared for promptly it may change to the second type. The second type, the one for which we are most frequently consulted, is the next step in this process and is seen most frequently on the feet, especially between the last two toes. There is a sodden, grayish, macerated skin, which easily cracks, giving rise to persistent itching, constant pain and scratching; then, as might be expected, trauma with secondary infection which may even extend above the ankles. The third type, not encountered so frequently, shows itself as the third stage, and is clinically a hyperkeratosis of the palms and soles.

This is a parasitic disease and may be caused by any of the yeast-like organisms that are classified under microsporion, trichophyton, epidermophyton, or saccharomyces, when planted on a warm moist surface. There is deep penetration and, as a consequence, treatment is tedious and in many cases unsatisfactory. In the vesicular type, an antipruritic lotion, or occasionally an astringent wet dressing, abstinence from the local use of water, and substitution of olive oil as a cleansing agent will, in the majority of cases, clear up the condition clinically; although as the cause has not been eliminated recurrence is frequent. The second and third types present a more difficult problem, and in a round table discussion at the meeting of the American Der-

matological Association in 1924 the various and divergent types of treatment advocated by leaders in American dermatology showed the weakness of therapy. Almost everything from lotion to x-rays had its sponsors, but no one was satisfied that his treatment was ideal. I am seeing this second type constantly and, after trying various procedures, have found the following measures most effective: a saturated solution of chrysarobin in chloroform applied once a week; daily soaks in 1:10000 potassium permanganate solution; application of a drying antipruritic lotion to the more acute types; and the constant application of Whitfield's ointment (acid salicylic gm. 2., acid benzoic, gm. 4., petrolat. alb., q.s. gm. 60.) to the sodden and thickened surfaces. The cracks between the toes are occasionally touched with silver nitrate solution, and the chrysarobin solution is applied between all toes and to all nails, which should be kept short. This treatment, while not specific, has given me the best results, and I offer it to you as the fruit of my experience.

The sources of these infections are probably many. In the tropics, where much of the clothing is washed in pools and brooks, it is called "dhobie itch", and recognized as the result of laundry contamination. The ramps in the public shower baths of many clubs are probably another source. Bed linen, bath mats, and the family use of bath towels are probably others.

Many cases begin first as the well known "jock strap itch" (tinea cruris) and I have a patient now who had tinea cruris 25 years ago and has had secondary foot lesions as a consequence off and on ever since. Its prevalence is almost unbelievable. Halsey reports, in the American Journal of Medical Science for February, 1925, that in an examination of 100 college students 67% were clinically positive. An index of its prevalence in this community alone can be estimated by my stating that during the year past, I have treated 17 members of this society for this condition.

Spread of this disease can be prevented only by a great deal of care. Vigorous ap-



plication of a towel after using a public bath, and boiling all towels after use. Individual towels in the home, and paper towels to dry the affected parts of infected persons. Immediate investigation when itching is felt between the toes, and abolition of the common bath mat in the home. Publicity by the health authorities, and especially in the newspaper syndicate health advice, which is read by large numbers of people. Last of all, a little study on the part of physicians so that the disease may be treated as intelligently as possible.

## MENSTRUAL FUNCTION IN RELATION TO PULMONARY TUBERCULOSIS

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In this presentation the "tuberculosis" considered and referred to is pulmonary tuberculosis, or phthisis, and I have considered the subject as indicated in the title from two angles: first, the influence of pulmonary tuberculosis on the menstrual function; secondly, the influence of menstrual function on the course of pulmonary tuberculosis.

Before discussing the first division of this subject, a definition of menstruation, as stated by Whitehouse, of Edinburgh, might not be amiss: "Menstruation is the lochia of an unfertile abortion. The premenstrual endometrium is the menstrual decidua. Its development and life are dependent upon the corpus luteum. Menstrual abortion is initiated by death of the unfertilized ovum, and retrogression of the corpus luteum."

### INFLUENCE OF PULMONARY TUBERCULOSIS ON THE MENSTRUAL FUNCTION

It is generally believed that tuberculosis does exert an influence—and that a deleterious one—on the menstrual function. Many have believed that this deleterious effect was evi-

denced by suppression of the menses, but this is not always true. It undoubtedly occurs, and we find many women, afflicted with pulmonary tuberculosis, who menstruate without appreciable change to the end, while others suffer menorrhagia. Macht, in his study of some 1600 cases between the ages of 12 and 45, reports as follows:

(1) Regular menstruation, no change in type noted.....	51.6 %
(2) Amenorrhea .....	27.3 %
(3) Irregular menstruation....	8.3 %
(4) Menorrhagia .....	4.6 %
(5) Pregnant or lactating.....	4.4 %
(6) In menopause, artificial or otherwise .....	3.8 %

In other words, more than half of these cases gave a history of no change in menstruation; 27% gave a history of amenorrhea or scanty flow; while only 4.6% showed menorrhagia or profuse flow, and these were without disease of the uterine adnexia. Macht concluded that, change or no change in menstruation, it depended on but one factor, namely—the age of the patient. Whatever the stage of duration of the phthisis, it is as rare to find menstruation suppressed in patients of 35 years or over, as it is to find it present in patients under 20 years. Hence, Macht states that, as a rule, in patients above 35 years, even in an advanced stage of phthisis, we find a history of regular menstruation.

In the amenorrheic cases, age again plays an important rôle:

Under 20 years.....	32.5 %
20—30 years.....	39 %
30—40 Years.....	23.9 %
Above 40 years.....	4.6 %

### Stage of the disease (phthisis):—

First degree.....	45.8 %
Second degree.....	14 %
Third degree.....	23.7 %

### Duration of the disease:—

Less than 6 mos.....	41.9 %
6—9 mos.....	12.9 %
9—12 mos.....	2.8 %
1—2 yr.....	13.3 %
2—3 yr.....	6.7 %
3—4 yr.....	7.8 %
4—5 yr.....	2.6 %
Over 5 yr.....	3.3 %

These tables show: (1) That 32.5% of the

patients were under 20 years, while 39% were between 20 and 30 years, or in all, 71.5% with amenorrhea were below 30 years of age.

(2) That 45.8% of the amenorrheic patients, or almost one-half, were in the first stage of tuberculosis.

(3) That 41.9% of the patients had been ill for more than 6 months.

Amenorrhea is, therefore, a sign of considerable diagnostic importance. In fact, it should almost lead one to suspect tuberculosis in a young patient with such a history. The menstrual disturbance is a warning sign, always to be regarded as suspicious of tuberculosis; it may be a most valuable early sign. The change we see in the menstrual phase in young patients has been ascribed to the general hypersensitivity of the female organism at the time of puberty. The fact that these patients of the amenorrheic class continue to ovulate but do not flow, causing ovarian "orgasms", as termed by Daremberg, may cause great havoc. Menorrhagia is a most valuable early sign of tuberculosis. This was brought out in 1887 by Handforth and others, who state that children of tuberculous taint are liable to begin menstruating early and profusely.

Osler, Cornet and others include phthisis as an occasional etiologic factor in menorrhagia, which, when it occurs, does so early and precedes amenorrhea. It may be easily overlooked in history taking. The causes of menorrhagia may be: (a) hydremic condition of the blood, as in chlorosis; (b) degenerative changes in the vessel walls, as described by Thorn.

From the above facts we learn that most interesting and diagnostically and prognostically important changes in the type of menstruation may occur in the course of pulmonary tuberculosis. For we may note: (1) The menses may remain regular, after the thirtieth year. (2) The menses may be delayed in appearance, or not appear at all, in young delicate girls. (3) The menses may be regular and then gradually be succeeded by amenorrhea, and eventually by complete suppression. (4) The regular menses may be first followed by a period of menorrhagia,

then succeeded by amenorrhea, and pass finally to complete suppression.

#### INFLUENCE OF MENSTRUATION ON THE COURSE OF PULMONARY TUBERCULOSIS

In considering the subject from this angle, we must bear in mind certain fundamental facts in regard to the physiology of menstruation, which does not consist merely in a catamenial flow; the local phenomena are accompanied by the most profound constitutional changes. All these phenomena have a rhythmic periodic character. Even in a healthy woman the menses are accompanied by various subjective symptoms, making her feel unwell. We find also, reported by many writers, changes in metabolism, pulse, blood pressure, temperature, nitrogen elimination, etc., during menstruation. Suffice it to say that in menstruation the catamenial flow goes hand in hand with tremendous metabolic and constitutional changes; that these changes follow a rhythmic character, and may play an important part in disease in general and in tuberculosis in particular. This is best demonstrated if we carefully and minutely study tuberculosis in a female over a period of several months. During the menstrual period, we find marked periodic aggravation and amelioration of signs and symptoms. These peculiarly follow what has been described and demonstrated by Van Ott, as a menstrual curve. Generally speaking, at the time of menstruation in a phthisical patient, the curve shows certain conditions markedly aggravated: Catarrhal symptoms are increased in intensity; cough is more severe and frequent, more distressing, and expectorating may be more purulent and blood streaked; dyspnea may be more marked; anorexia is more marked; cases of laryngeal tuberculosis may take a rapid turn for the worse; physical signs may become more distinct and more alarming; the whole tuberculous picture and process may take a flare-up, which, however, may be transient, subside, or be the beginning of the end.

Two phenomena in particular, play a remarkable and interesting part in tuberculosis at the time of menstruation. They are, per-



iodic rises in temperature, and periodic hemoptysis. The heat regulating center or apparatus in woman, seems to be particularly unstable at the time of menstruation. Sudden changes, chills, fever and sweats, may occur. These rises, however, are mostly met with in pathologic cases, and in no other pathologic condition is a menstrual rise in temperature met with so regularly and frequently as in tuberculosis. We often find that the tuberculous patient, who has been progressing evenly and quietly, running a nearly normal temperature, will have a rise of a degree or more at the time of menstruation; it has been stated, roughly, this may be seen in 20% of cases but I think this is rather an over estimate. If an apparently well person runs a constantly recurring monthly menstrual rise in temperature, and pelvic disease cannot be shown, a tuberculous process should be sought.

Hemoptysis is a symptom of such striking and to the patient, so alarming, importance, that it has attracted great notice and study. Conveniently, we may term the hemoptysis that occurs at this time a periodic hemoptysis. Several authors have described the "morning hemoptyses" and "nocturnal hemoptyses", and several have definitely described menstrual hemoptyses. These are thought to be due to the vast and important constitutional, nervous, metabolic, and thermal changes that occur at the time of menstruation; as they occur simul-

taneously with the flow, or even during amenorrhea when they become "vicarious hemoptyses". Formerly, these were considered favorably, but they have been proved otherwise. They may be caused by the rise in blood pressure, and also by changes in the vessel walls in tuberculosis.

### CONCLUSION

(1) Aggravation of all symptoms and physical signs of tuberculosis may be effected by menstruation.

(2) The effects of ovulation may continue after menstrual flow has been suppressed.

(3) Periodic changes in temperature, are very often common, occurring in a large percentage of cases, and are of diagnostic and prognostic import. These rises may be premenstrual, menstrual, intermenstrual or postmenstrual.

(4) Periodic hemoptysis and other hemorrhages are more common in tuberculous patients than is generally believed. They may occur simultaneously with the menstrual flow, or may take the place of menstruation.

(5) True vicarious menstruation does occur, but is rare; when present it should cause one to suspect tuberculosis.

(6) The evil effects of the menstrual process on the constitution of the patient, can be minimized by proper treatment.

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### THE LOITERER

He argued that to idle was a duty

In a world that God had made so good—

Else why was every by-way bright with beauty

And why the thrushes chanting in the wood?

He saw no reason why a man should hurry

And thus miss life somewhere along the way;

He saw no need for all the haste and hurry—

For dusk brings soon enough the end of day.

At that, he said he had no weighty reason

Why others, wiser, should not pass him by;

He must wait to sample every season

And ponder riddles of the earth and sky.

He heard the thunder of the world receding

But liked the peace it left, for he, alas,

Knew never where the path he took was leading—

God made his feet to loiter through the grass!

Arthur Wallace Peach.

Annual Report of the Treasurer  
of  
THE MEDICAL SOCIETY OF NEW JERSEY  
FOR THE YEAR ENDING MAY 31, 1927

CAPITAL ACCOUNT

DR.

May 31, 1926.

1 M Chicago & Alton 3½ % bond	\$786.50
2 M 1st Liberty Loan 3½ % bonds	2000.00
5 M 4th Liberty Loan 4¼ % bonds	4975.63
	<hr/>
	\$7762.13

CR.

May 31, 1927.

1 M Chicago & Alton 3½ % bond	\$786.50
2 M 1st Liberty Loan 3½ % bonds	2000.00
5 M 4th Liberty Loan 4¼ % bonds	4975.63
	<hr/>
	\$7762.13

CURRENT ACCOUNT

RECEIPTS

Balance, May 31, 1926. \$14,129.94

Assessments—

Atlantic	\$1300
Bergen	1170
Burlington	460
Camden	1190
Cape May	220
Cumberland	460
Essex	6686
Gloucester	310
Hudson	4030
Hunterdon	250
Mercer	1400
Middlesex	1115
Monmouth	705
Morris	750
Ocean	150
Passaic	1810
Salem	150
Somerset	330
Sussex	210
Union	1820
Warren	300
	<hr/>
	\$24,816.00

Publication Committee	6,202.91
Interest	671.00
Health Charts Sold	99.15
	<hr/>
	\$45,919.00

PAYMENTS

For Committee on Publication.....	\$10,582.56
" " " Welfare .....	616.29
" Board of Trustees .....	13.00
" Committee on Health Insurance..	205.90
" Committee on Finance .....	6.35
" Executive Secretary: Salary.....	10,000.00
" " " Expenses ..	2,968.58
" Recording Secretary: Salary.....	950.00
" " " Expenses ..	1,236.49
" Treasurer's office .....	65.00
" Printing and stationery .....	880.50
" Legal expenses .....	744.20
" Picture machine and films .....	857.40
" Dr. English Memorial Tablet ....	167.00
" Annuity .....	500.00
" Tri-state conference expenses ...	60.80

BALANCE, May 31, 1927 .....	16,064.93
	<hr/>
	\$45,919.00

BUDGET BALANCE, 1927

Expected Income .....	\$30,635.00
Actual Income .....	34,616.98
	<hr/>
Budget Appropriations .....	30,635.00
Actual Expenditures .....	29,854.07
	<hr/>
Excess Income .....	3,981.98
Credit Balance .....	780.93
	<hr/>
Net Budget Balance to 1928 .....	\$4,762.91

E. J. Marsh, Treasurer.



# JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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## PUBLICATION COMMITTEE:

CHARLES D. BENNETT, M.D., Chairman, 300 Broadway, Newark, N. J.

## EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Apartment 22 Grammercy Court, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if,—

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

## A. M. A. CONVENTION

The meeting of the American Medical Association, at Washington, May 16-20, was a tremendous success. Registering approximately 6000 members in attendance, it was close to the "banner year" from that standpoint. The scientific programs of the various sections were of a high order, and the interesting topics chosen for discussion and qualifications of the speakers selected to present these subjects attracted large audiences. Of scarcely less scientific importance were the remarkable exhibits of pathologic material, often accompanied by lectures or demonstrations by the exhibitors, and the noteworthy collection of roentgenograms, photographs, models and improved surgical appliances. One outstanding exhibit, prepared by Dr. Arthur Bedell, of Albany, N. Y., consisted of a large series of photographs of the human eye-ground; an accomplishment which, considering the technical difficulties conquered, constituted an achievement in photography seldom, if ever, equalled. To an ophthalmologist, or to an internist concerned with the ophthalmic evidences of systemic affections, these pictures alone were worth the cost of a trip to Washington.

The social features of the convention were on a scale commensurate with the fact that Washington is the Capitol of the Nation and a large and wealthy city in its own right, and

while weather conditions were not quite ideal a "good time was had by all".

The House of Delegates held its sessions in the District of Columbia Medical Society Building, the auditorium of which furnished ample accommodation for a gathering several times as numerous, and we were profoundly impressed by the fact that so small an organization, in point of membership numbers, should possess so large an establishment. The District Association has a membership, according to the A. M. A. Directory, of only 569; almost exactly the same as that of our largest county society, for Essex has 568 members according to the last published official list. This naturally suggests the idea that the New Jersey Medical Society ought to be able to construct a real home for itself.

In the election of Dr. William Sydney Thayer, Emeritus Professor of Clinical Medicine Johns Hopkins University, Baltimore, Maryland, to the presidency, the association conferred a well merited honor upon one of its most worthy and distinguished members and honored itself by placing in that position a leader of the very highest type. No one in American Medicine today stands for higher ideals than those of "Billy" Thayer. Few men engaged in the practice of general medicine have attained to such distinction as has been awarded him in the past—as evidenced by membership or official position in the lead-

ing scientific societies of the United States and many foreign nations, by his reaching the rank of Brigadier-General in the American Expeditionary Forces of the World War, his receipt of the Distinguished Service Medal, U. S. A., and ribbon of the French Legion of Honor, and by his pre-eminence as a teacher and writer in the medical field. No general medical man of the period could shed more lustre upon the association, few can have so marked an ability for leadership, and it should be a source of great satisfaction to the vast majority of the profession that the presidency has been conferred upon so eminent a practitioner.

Minneapolis was selected as the next place of meeting; Kansas City having been the closest competitor for this honor.

Inasmuch as the House adopted a resolution instructing its secretary to prepare a synopsis of proceedings and to present this within 30 days to the several State Society Journals, we will defer publication of reference to other matters until the official report is at hand.

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#### STATE SOCIETY MEETING

There is nothing new or enticing to add to the program for the annual session of our society, as published in full in the Journal of last month, and we can only hope now that an unusually large percentage of members has arranged to take advantage of the scientific and social feasts offered. With the program in hand more than a month in advance of the meeting, everyone has had an opportunity to learn what subjects are to be discussed and to prepare for participation by contributing to the sum of general knowledge from his own records of scientific and professional work. This alone should have the effect of making the general meetings extremely interesting.

Perhaps the opening sentence of the above paragraph should be modified somewhat for one new feature has been added to the general program. The film purchased last year for demonstration of the "Technic of Physical Health Examination", has been exhibited before nearly all of the county medical societies during the winter and with most gratifying

results, but, even so, there are many members of the state organization who have not had the privilege of seeing it. The desire to make it available to as many as possible, developed the notion of showing it during the Annual Meeting, and this in turn suggested the idea of planning a "side show" of "movies" after the method so successfully employed by the A. M. A. for several years past. In consequence, the loan of a number of medical films has been secured and by special arrangement with the Program Committee and the Committee of Arrangements provision has been made for presentation of a series of moving pictures daily between the hours of 4.30 and 6 p. m. Two of our own members have promised to show interesting films prepared by themselves and, altogether, this should prove to be an attractive extension of an already winsome program.

Every member of the state society is or should be interested in the proceedings of the House of Delegates, and this year's session of that body promises to be an extremely important one. In the first place the business affairs of the closing fiscal year have to be reviewed, as presented in the reports of various officers and committees, and provision made for carrying on the work of the coming year; this is enough to excite considerable interest, for the society's business transactions concern the individual member as to his professional welfare. Secondly, the increasing number of outside interests that are engaging the attraction of medical organizations make it an important matter that every member shall keep posted regarding these diversified interests and shall have his say in determining upon and directing such work.

Not the least interesting item on the House of Delegates program is that referred to in our last issue and which deals with the necessity for revising the Constitution and By-Laws of the Society to effect harmony with our charter. Current gossip leads us to fear that there is considerable misunderstanding of our counsel's opinion and recommendations, and, in the hope of correcting this and preventing a situation wherein much useless talk may be indulged in, we respectfully urge all



members to read that document carefully and thoughtfully. There are several questions which would seem to be perfectly clear and yet about which we have heard most confusing statements. The opinion merely declares that certain methods of procedure are not in full accord with the letter of the charter, and that if persisted in might lead to legal complications. The recommendation is that the Constitution, rather than the Charter, be altered, and that, while engaged in making this alteration, it would be wise to repair the whole garment because other defects are plainly visible. No radical action is called for and we are not aware of any being contemplated. For instance, permanent delegates are not objected to because of their permanence but because of the faulty manner in which they have heretofore been elected; and counsel points out the way for county societies to provide for permanent tenure of delegates office if they wish so to do. Nor has anyone a wish to incontinently fire from office the present permanent delegates; the House must function as at present constituted until the desirable changes shall have been effected.

It has been suggested by one county society that the existing method of procedure be held and the Charter itself revised. That would seem a very questionable course to pursue. Our Charter is a unique instrument, worthy of preservation because of its antiquity and unusual character, and such a document ought not to be tampered with needlessly or without careful forethought. Why alter the fundamental law of the society in order to correct a small error in parliamentary procedure; it sounds a good deal like a proposition to reconstruct the foundations of a house because the roof leaks. A second objection may be found in the fact that continuance of the present state of affairs does not help to solve the problem. We are advised that the recent course of the organization has not been, in certain respects, entirely legal and that the legality of our action could be questioned if it suited anyone's interest to do so. At the same time we are advised that the error can be corrected by the very simple process of revising the Constitution and By-Laws, and that such revision is advisable for several reasons.

There seems no good reason why this may not be effected without difficulty and without injury to any member.

Much trouble will be avoided if everyone who is to attend this meeting, and particularly everyone delegated to participate in the transaction of its business affairs, will read and digest the communication from Mr. Colie, published on pages 303-305 of the Journal of May.

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## WIDOWS AND ORPHANS

We desire to direct the attention of our readers to the Forty-Fifth Annual Report of the Society for the Relief of Widows and Orphans of Medical Men of New Jersey, which appears elsewhere in this issue. The report shows the society to be in a prosperous condition and deserving of the interest and friendship of every member of the medical fraternity in this state.

The objects of this Society are to lend a helping hand to any of its members who may be disabled by sickness or misfortune, or to provide immediate financial assistance to such member's family in case of his death. These objects are attained by a per capita assessment of \$1 upon notification of the death of a member; 75% of this amount is given at once to the widow or if there is no widow to the children or executor; the remaining 25%, except what is used for necessary expenses, is placed in the Permanent Fund, the income of which is used in dispensing relief to those needing assistance. The "Principal" of this Fund, which already amounts to a respectable sum, can not be spent for any purpose whatever.

This is not an assessment life insurance society, but is a fraternal organization made up exclusively of medical men. If you have not already joined you should do so, because at a very small cost to yourself you may afford assistance to a professional brother in distress or to his family in want, and also because you, yourself, or your family, may at some time stand in the same need.

Read the report and then send to the secretary for some application blanks, fill out one for yourself and get a few friends to fill out the others.

## Golden Jubilee Dinner

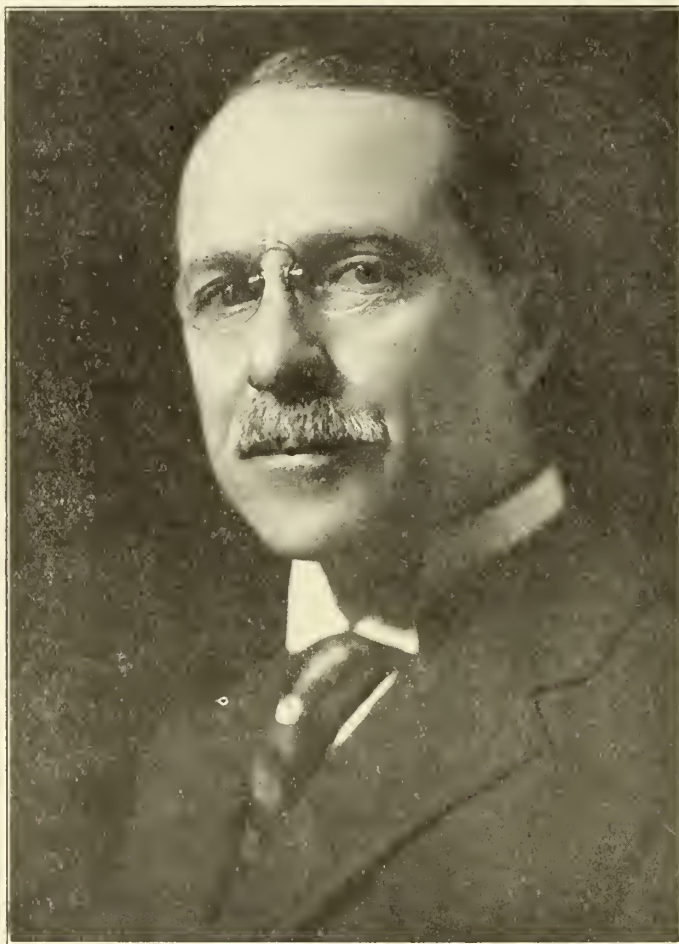
in honor of

**GORDON KIMBALL DICKINSON, M. D.**

On the evening of Saturday, April 2, 1927, at the Hotel Pennsylvania, New York City, there assembled a host of men and women to pay tribute of respect to Dr. Gordon K. Dickinson upon his completion of 50 years in the active practice of medicine. It was

few, indeed, would find a fiftieth anniversary of service celebrated by hundreds of professional confrères and friends from all the walks of life. Dr. "Dick" was looking still like a young man; more than 300 friends and co-workers gathered at the banquet tables; and messages were received from many whom distance or ill health prevented from appearing in person.

At the conclusion of the dinner a beautiful bronze figure of "The Life Saver" was presented to Dr. Dickinson as a token of



**Gordon Kimball Dickinson, M.D.**

a remarkable occasion in many ways. Very few physicians continue in active practice for so long a time and find themselves at the 50 year record post in such prime condition for continuance of the race; very few live beyond the biblical allotment of three score and ten years without exhibiting some evidence of failing physical powers; very

affection on the part of the Hudson County Medical Society.

The Testimonial Committee responsible for the success of this event consisted of: B. S. Pollak, General Chairman; William Freile, Vice-Chairman; Harry J. Perlberg, Secretary; F. J. Quigley, Chairman Committee of Arrangements; S. A. Cosgrove,



Chairman Committee on Program; Hugo Alexander, Donald Miner, Frank Bortone, Frank McLoughlin, Grant P. Curtis, John Nevin, Lucius F. Donohoe, Charles V. Niemeyer, Howard Forman, L. A. Opdyke, Earl J. Halligan, George O'Hanlon, Abraham E. Jaffin, Charles A. Purdy, Charles B. Kelley, Wallace Pyle, Joseph Köppel, George H. Sexsmith, Joseph H. Londrigan, Henry Spence, Theodore H. Lemmerz, Henry Von Deesten, Charles J. Larkey, and Stanley R. Woodruff.

The "Invocation" was delivered by Rev. Harry Louis Everett, A.B., M.A., D.D., Pastor of First Congregational Church, Jersey City.

Among those seated at the banquet were:

Guest Table.—Dr. Gordon Kimball Dickinson, Mr. Robert Carey, Rev. William A. Costello, Rev. Dr. Harry L. Everett, Dr. J. B. Morrison, Dr. J. C. Parsons, Dr. B. S. Pollak, Dr. Henry O. Reik, Rev. Dr. Maurice Thorner, Rev. William A. Byrd, Dr. John B. Deaver, Dr. John Osborn Pollak, Rev. Dr. I. W. Gowen, Dr. William Freile, Hon. John F. O'Neill.

Table 1.—Mr. William H. Dickinson, Mr. Frederick H. McCoun, Mrs. Frederick H. McCoun, Dr. Ross McPherson, Mrs. Ross McPherson, Mr. E. J. Pirman, Mrs. E. J. Pirman, Mr. Thomas R. Shepard, Mrs. Thomas R. Shepard, Mr. Edward F. Swenson, Miss Louise Swenson.

Table 2.—Mr. John Borg, Mrs. John Borg, Mr. M. C. Ely, Dr. Frank Freeland, Mrs. Frank Freeland, Dr. Seneca B. Farr, Mrs. Seneca B. Farr, Dr. F. S. Hallet, Dr. Joseph R. Morrow, Mrs. Joseph R. Morrow.

Table 3.—Mr. Robert Alberts, Mrs. Robert Alberts, Mrs. Robert Carey, Mrs. Leon Gilmore, Dr. Henry Spence, Mrs. Henry Spence, Mr. Arthur Stratford, Mrs. Arthur Stratford, Mr. H. Otto Wittpenn, Mrs. H. Otto Wittpenn, Mr. Geo. L. Record.

Table 4.—Dr. J. H. Boldt, Dr. Frederick H. Albee, Dr. Warren Coleman, Dr. Asa B. Davis, Dr. Walter Dannreuther, Dr. John F. Erdman, Dr. Charles Gordon Heyd, Dr. Geo. W. Kosmak, Dr. John A. Robinson, Dr. Ralph C. Williams, Dr. John Nevin, Dr. William Doran.

Table 5.—Dr. Alvin Kuhlmann, Mrs. Alvin Kuhlmann, Miss Minnie V. Shanley, Dr. Margaret Sullivan, Dr. Frederic J. Quigley, Mrs. Frederic J. Quigley, Dr. Charles Niemeyer, Mrs. Charles Niemeyer, Dr. Anthony G. Sacco, Dr. Charles B. Kelley, Dr. Grant P. Curtis, Mrs. Grant P. Curtis.

Table 6.—Dr. F. F. Bowyer, Mrs. F. F. Bowyer, Dr. Sidney Chayes, Dr. John C. McCoy, Mrs. John C. McCoy, Mrs. Sidney Chayes, Dr. George H. Sexsmith, Mrs. George H. Sexsmith, Dr. E. T. Steadman, Mrs. E. T. Steadman, Dr. Samuel A. Cosgrove, Mrs. Samuel A. Cosgrove.

Table 7.—Miss Jane Purcell, Mr. C. J. McCloskey, Mrs. C. J. McCloskey, Mr. James F. Wilson, Mrs. James F. Wilson, Miss Louise Shepherd, Mr. M. Scura, Mrs. M. Scura, Mrs. Fred Trott, Dr. L. A. Pyle, Mrs. L. A. Pyle.

Table 8.—Mr. William H. Burrow, Dr. H. B. Costill, Dr. Edward Guion, Mrs. Edward Guion, Dr. B. Van D. Hedges, Dr. J. R. Herradora, Dr.

James Hunter Jr., Dr. P. Hoffman, Dr. George W. King, Dr. John E. Runnels.

Table 9.—Dr. Burdette C. Craig, Dr. Howard S. Forman, Dr. Donald Miner, Dr. Wallace Pyle, Dr. O. R. Blanchard, Dr. S. Morgan Jones, Dr. Charles H. Purdy, Dr. Jacob L. Rosenstein, Dr. John Willis, Dr. James G. Enright, Dr. Charles Faupel, Dr. H. H. Brinkerhoff.

Table 10.—Dr. Paul Andraea, Mrs. Paul Andraea, Dr. Jack Blumberg, Dr. Joseph B. Edgar, Dr. Louis Franklin, Dr. I. Harold Franklin, Dr. J. M. Halloway, Dr. Harold Hoops, Dr. Perry J. Mannheim, Dr. F. J. Marulanda, Dr. Charles Sirken.

Table 11.—Dr. A. E. Jaffin, Mrs. A. E. Jaffin, Mr. Benjamin Muslin, Mrs. James F. McKee, Mr. Max Strauss, Mrs. Albert H. Rieser, Mrs. B. S. Pollak, Miss Ida M. Shute, Dr. Aaron P. Sussman, Mrs. A. P. Sussman, Dr. Joseph Köppel.

Table 12.—Dr. L. A. Opdyke, Mrs. L. A. Opdyke, Dr. C. A. Opdyke, Mrs. C. A. Opdyke, Mrs. Elizabeth Parmley, Mr. W. Ashley de Wolf, Mrs. W. Ashley de Wolf, Dr. Herman Feit, Dr. Wells P. Eagleton, Mrs. Wells P. Eagleton.

Table 14.—Dr. Hugo Alexander, Dr. W. W. Brooke, Dr. Samuel B. Barishow, Dr. A. W. Little, Dr. Edward E. Lupin, Dr. M. I. Marshak, Dr. John J. Pagliughi, Dr. Joseph A. Whalen, Mrs. Joseph A. Whalen, Dr. A. A. Mutter, Dr. L. B. Fauquier.

Table 15.—Dr. C. J. Larkey, Mrs. C. J. Larkey, Dr. L. F. Donohoe, Dr. Ernest Thum, Mrs. Ernest Thum, Dr. S. R. Woodruff, Dr. Joseph F. Londrigan, Dr. Harry J. Perlberg, Mrs. Harry J. Perlberg.

Table 16.—Dr. William J. Arlitz, Dr. P. D'Acerno, Dr. F. Von Deesten, Dr. J. C. Farr, Dr. Karl Hoening, Dr. William Stuart, Dr. Thomas McG. Brennock, Dr. John H. O'Neill.

Table 17.—Mr. J. Kinlen, Mrs. J. Kinlen, Mr. Clarence Owens, Mrs. Clarence Owens, Mr. J. Prentiss Kip, Mrs. J. Prentiss Kip, Mr. I. Seeman, Mrs. I. Seeman, Dr. Walter Weber, Mrs. Walter Weber.

Table 18.—Dr. Edward I. Ill, Mrs. Edward I. Ill, Dr. Charles Ill, Mrs. Charles Ill, Dr. E. B. Newman, Dr. Ellis T. Smith, Dr. H. J. F. Wallhauser, Dr. Louis Weiss.

Table 19.—Dr. Frank Bortone, Mr. Thomas J. Golden, Dr. T. H. Lemmerz, Mr. Adolph A. Langer, Dr. James A. Nugent, Dr. Joseph A. Nevin, Dr. George O'Hanlon, Dr. S. B. Sprague, Mr. Stewart, Mr. Herman W. Walker, Dr. Arthur P. Hasking.

Table 20.—Mr. W. W. Baxter, Mr. Joseph B. Boyle, Mr. George A. Clark, Dr. John R. Comorato, Dr. M. Frank, Mr. Charles H. Kip, Mr. Haddon Ivins, Dr. Geo. W. Muttart, Dr. Herbert B. McLean, Dr. A. Urevitz, Dr. David I. Nalitt, Dr. Lewis Mendelsohn.

Table 21.—Mr. William F. Brown, Mr. Joseph E. Bernstein, Mr. John W. Heck, Mr. J. C. Parsons Jr., Mr. William H. Richardson, Mr. Louis Sherwood, Mr. Frank A. Tibbetts, Dr. Thomas E. Smith, Mr. George G. Tennant, Dr. Hamilton Vreeland, Professor C. C. Wilson, Mr. Vincent Schenck.

Table 22.—Dr. James W. Proctor, Mrs. James W. Proctor, Dr. William L. Vroom, Dr. J. Finley Bell, Dr. William Spickers, Dr. Oscar Koenig, Mrs. Oscar Koenig, Dr. F. E. Lambert, Dr. Hilliard Lockwood, Dr. S. Herbert Culver, Mrs. S. Herbert Culver.

Table 23.—Dr. Frank J. McLoughlin, Dr. P. J. Hamill, Dr. J. F. Norton, Dr. Geo. J. Brick, Dr. E. J. Halligan, Dr. E. F. Kopetschny, Dr. J. A. Sullivan, Dr. F. J. Short, Dr. L. W. Dodson, Dr. G. M. Culver, Dr. H. J. Halligan.

Table 24.—Dr. A. P. Blakey, Dr. J. J. Connell, Dr. A. J. Brozdowsky, Dr. J. P. Manger, Dr. A. V. Povalski, Dr. E. J. Daly, Mr. E. B. Finnerty, Mr. J. B. McDonald, Dr. A. Nelson, Mrs. A. Nelson, Dr. John B. Falsion.

Table 25.—Dr. Louis Lange, Dr. Joseph Schapiro, Mrs. Joseph Schapiro, Dr. William Sweeney, Mr. Walter Kudlich, Dr. Leo Brandenburg, Mrs. Leo Brandenburg, Dr. Thomas Coughlin, Mrs. Thomas Coughlin, Mrs. Louis Lange, Dr. Arthur Justin, Mrs. Arthur Justin.

Table 26.—Dr. Fred. Pindar, Mrs. Fred. Pindar, Dr. G. Tedesco, Mrs. G. Tedesco, Dr. Louis Pearlstein, Dr. Alvin Kuhlmann, Dr. H. J. Spalding, Dr. H. T. Tidwell, Dr. E. J. Luippold, Dr. J. Baechler, Dr. W. I. Dillingham, Dr. Albert D. Greene.

Dr. B. S. Pollak acted as "Toastmaster" and with appropriate remarks called forth the following speeches:

*Dr. Charles Gordon Heyd:* What shall we say about our honored, wise and much respected guest? Half a century of progress in scientific thought and personal achievement!

I wonder why New York was selected to pay this singular tribute? Probably, we do not know the Doctor as well as you do.

This reminds me of a story. There was a town noted in its local history for the wonderful virgin carved of wood, and as the townfolk passed this virgin they raised their hats. It was a local institution. The single, lone Hebrew of the community in deference to the rest of the community, raised his hat also. But alas, a storm came and destroyed the virgin. But near the market place was an old church and the elders gathered and they imported an artist and erected another virgin carved from the wood of a pear tree that had stood beside the church. Life was happy in the community again, and as they passed the virgin the people took off their hats. But not the lone Hebrew. The elders were concerned and said to the Hebrew: "Alas, why do you no longer pay tribute to the virgin?" To which he answered, "Consider, elders, I knew the old pear tree very well".

We, also, Doctor, are not paying tribute to Gordon K. Dickinson, we are paying ourselves an honor in recognizing one of the distinguished exemplars of our profession.

I met Dr. Dickinson in 1911 and was immediately taken to him by reason of the fact that his name was Gordon. He got his name from a clan noted for their courage, and he has carried on the reputation of that clan.

Fifty years, half a century, what has it embraced? In youth we believe that life is a straight line and by a series of events comes to the end. Later we recognize that it is a circle in which the present harkens back to the past. Fifty years ago this gentleman started as an intern in the Christ Hospital in Jersey City; today he is consulting surgeon in that institution. What a simple circle! What an achievement! He has witnessed the development of science from its early beginnings, through Pasteur and Lister into aseptic surgery. This man was 6 years of age when the second great war of his country was fought, the Civil War; he was 10 when Lincoln was assassinated; 14 when the railroad first linked the Atlantic and the Pacific. Within his time he has seen the development of radio and aviation. He has witnessed the war fought for abolition of slavery, the Spanish-American War, the World War of 1914. Any man who has lived through these events and has participated in them has lived a positive life.

He has been a source of strength in his community. Divide his activities into two main departments—that of surgeon and that of the man. As to his achievements as a surgeon—a surgeon is a success in a number of ways. He may be judged by the number of people he operates upon, yet these few thousand people are not nearly as important as the young men who are more useful scientists because such a man exerted his influence over them. He is a modeler and a teacher of youth. How shall we speak of Gordon Dickinson as the man? There is enough ego in all of us to want the appreciation of those with whom we come in contact. One may say of this man that in his place as a man he has been singularly useful. Here is a list of the activities with which this man has been identified; is there a realm of social contact to which he has not lent his energy and talent? Tuberculosis, Glee Club, Cosmos Club, College Fraternity, Library Association; so that everywhere one finds the character and personality of this man. As a surgeon he has carried on an active participation as a member of the community, charged with the responsibilities attached thereto.

I cannot imagine a greater evening of enjoyment for you, Sir, than to be surrounded here by those who are rich in your friendship, hoping and trusting that you will be granted many more years of usefulness.

Long may you live! You may be older in years, but in your heart you are a boy among the boys.





The Life Saver

*Dr. John Osborn Polak:* It is a rare privilege to journey from Brooklyn to pay our tribute to a man that we have known so many years not only by reputation but personally. Dr. Heyd wondered why this celebration was staged in New York. I believe that it is staged in New York to give an example to New York of what a man just across the Hudson can be in his community, in the hearts of his people, in the hearts of the citizens of his own city.

Doctor Dickinson comes of old English stock. They said he was a Scotchman, but I cannot find anything about that. They came here in 1630, settled somewhere in Vermont and then, as all those did, they started West, and if you follow the trail of most of them, they've landed at some time in Jersey, but most of them settled in Brooklyn before they settled in Jersey. But this trail is not complete, the Dickinsons didn't settle in Brooklyn before they settled in Jersey.

One thing that has impressed me in my associations with Dr. Dickinson has been that certain quality of man that you are all familiar with, that you have come here tonight to pay tribute to. While he has been a physician in Hudson County for 50 years his influence has not been local, his influence has been national. He has occupied at various times every position of honor that could be given a man by his fellows. He has been selected as the representative in practically every piece of progress that has emanated from Jersey. When you look over what has been accomplished by this man in 50 years you don't wonder that he's thin. I believe that every time he started to gain a little weight he got some pneumonia and took off a few pounds. Figuring this out in his 50 years, with 37 attacks of pneumonia, I can't see how he's here at all. Apparently it's because of the care he received in Jersey City.

This man brings to the medical profession something that we need now more than ever before. He stands to my mind as the representative, or one of the representatives, of what we mean by a "professional man". He has the culture, he has the confidence, he has the sympathy, he has the energy that makes the man. You should see him on the other side of the Atlantic, travelling mile after mile in order that he may find what progress has been made over there.

This man has been making men for half a century and there is not a man who has

been under his influence who is not sure of the greatness of our honored guest. I feel that in coming here tonight I have been singularly honored when I have been permitted to talk to you of some of the things that have been accomplished by him in these 50 years. Think of that telegram that was received and read to you from "Smiling Through"! What does it mean? It means the love that these people bear for what this man has done in checking the Great White Plague. He started this work in 1906 and we know today that that work done in Hudson County stands throughout the country without parallel.

I want to say to you that I came here with the idea of speaking to you and had prepared a few words that might perhaps have pleased you, but when I looked at this audience I got stage struck. This I will say to you, Sir, you stand in my mind as the great physician, the man and the friend.

*Judge Robert L. Cary:* I wish the words could come to me to express to you just how I feel tonight, but I know they can't. But I want to say this, that I congratulate the men of the Hudson County Medical Society for having developed this wonderful and well deserved tribute to the guest of the evening, and I want to thank them for those of us here that are not members, for the privilege of being a part of this wonderful occasion tonight. I asked Dr. Parsons why he came all the way from Syracuse, where he has gone to farm and work, down here. He said, "I came because I know Doctor Dick". "But we all know Dr. Dick". "There are few of you who know him as I know him. Dr. Dick is not merely a genius of medicine, not merely a friend of man, but an institution. You could capitalize him and sell the stock to the people of our county". A wonderful tribute from the man that knows him.

Let me put it another way—that the man's philosophy of life is to live in the hearts and affections of the people. Many are his ways that you and I cannot understand. I have known him for 40 years and I've never been able to understand him. I don't mean his writing. I can't grasp it. You take the characters out of history, Lincoln and Roosevelt. You can describe, you can tell what it is. I don't know just what it is about the Doctor. I cannot speak to you of his surgical ability or medical value, but something brings us all here tonight. He gets no honor by our being here tonight, we get the honor, the privilege of being at his feet tonight.



I know what his friendship means. Not so long ago I needed a friend of the kind he is, a man I could have confidence in. I can remember the morning. The Doctor had just come from Eroupe. He was not feeling well; he was in his bed in his house on Montgomery Street. The errand for which I needed him would take him 100 miles away. He got out of his bed, into his automobile, and travelled the hundred miles. Tonight while we're celebrating, I know that if he hadn't come that day I wouldn't be a happy man tonight. I know him as a man of fine sentiment and fine sacrifice and a man ready to do the service.

Doctor Dickinson has been able to find time out of his busy life in attending the sick to attend to other fields of useful life. He has been untiring in his work for the institution known as Christ Hospital. He started the first Tuberculosis Clinic in the State of New Jersey and conducted it alone; this grew into the Tuberculosis Hospital over which Dr. Pollak now so wonderfully presides at Snake Hill. The City Hospital—he was chairman of the committee that developed that wonderful enterprise. To him belongs a great part of the credit for that great plant on the hill. So has he been in every line of endeavor.

The Doctor has a wonderful library. I wonder where he gets the time to read, but he reads the books so differently from the rest of us. I got something of that only a little while ago. The Doctor had done for me an incidental thing. "I would like a book", he said. "What book would you like?" "A book by a man named Seneca, a wonderful book, it's already out of print". I didn't get the book because he doesn't need it.

He has had a wonderful life. He understands the meaning of almost everything. I was talking to him the other day and I asked him if he'd like to live the 50 years over again and wouldn't he like to go back, begin where some of the boys are now. He said, "Begin over again? I've just the same philosophy that Chauncey Depew has. Chauncey says each morning when he gets up he begins his life over again. That's my philosophy. I begin my life over again each day".

In the course of the last 50 years the Doctor has contributed to the medical literature of this land 126 articles printed in the medical magazines. That in itself is a wonderful contribution to the progress of our age.

We are here tonight, Doctor, not because you have been 50 years in service, not on account of your medical accomplishments; we are all here because we love you. There isn't a man in our community who hasn't a feeling that he cannot describe in words. We like to see you come into our homes. There's no other man like him living. May God grant that he may continue to give to us the wonderful service and friendship that he has been giving. I can look ahead, I can see he hasn't changed in 40 years. I can see him in his library among his wonderful books, making those notes that nobody can read. I can see him working, hurrying to Christ Hospital. I hope to see you running around Christ Hospital as long as I live. I can see that generation of 25 years from now—the interns calling him "Dick" and the nurses calling him "Daddy". In the medical history of our country he is a great doctor, he is a great surgeon. He is a wonderful friend and he's the only doctor who's given two pairs of twins to the community. He is a wonderful man, a wonderful father, a wonderful friend, teacher, helper, almost everything—an institution, an inspiration.

If I was a judge still and he were standing at the bar before me—you couldn't get a jury to convict him, you couldn't get 12 men together of which some weren't under everlasting obligation to him—but if he were standing before me for final judgment I would say he was guilty of giving 50 years of a wonderful life to his community, and the sentence is another round of 50 years in the service of your fellow men, working among your friends. Know that that comes from the heart of every soul in this room.

If all who felt for you could have come here tonight, all the banquet halls in the City of New York could not accommodate them. If all for whom the Doctor has done a kindly, clean or helpful deed could bring here now each one of them a little flower and place it here before him, he would be hidden from your view by a wilderness of beautiful blossoms.

*Dr. Samuel A. Cosgrove:* To serve, in its original meaning, was to do tasks for another, particularly menial tasks; to be another's slave, to devote all one's energy and time and even life to another; to belong to another—in that sense it denoted inferiority and humility. In the olden days, the body servant had to serve his master in his most critical needs as well as in his lesser ones. He became his shield bearer, his weapon carrier; he laid down his life to protect his

master. So, the meaning of the word changed. The servant became the life saver proper, although the servant remained simply in relation to his master. He reflected something of his master's greatness. If his master were a great warrior or a prince, the teacher of the master became the teacher of his servant. If a man served a great prince, he achieved a greatness of his own and a greatness born of service. So we find there is a curious mixture of humility and pride in our concept of service. The august head of the greatest church organization in the world signs himself—the servant of the servants of God. The son of God declared that he came not to be served but to serve. And so arose the life-saving service, the service of those who contribute a sacrifice of their lives, a lion-hearted fearlessness of personal danger, wisdom gained of experience, and they have for their repayment only the privilege of serving. I think the artist has caught in the vision which he has translated here into bronze (exhibiting a bronze statue), that which typifies the profession of life saving, with all its great tradition of heroism. We of medicine are also the legatees of a noble tradition, we labor in the service of life saving, whose history is resplendent with sacrifices and service to mankind without regard to any other consideration. He who would serve medicine well must serve it with all sacrifice of self, even of life itself, and in so doing must be regarded only as having done his duty.

And to you, Gordon K. Dickinson, we present this embodiment of a vision, confident that it fittingly symbolizes your half century of life saving in the service of medicine and in the hope it will express something of the honor, esteem and love we bear you.

*Dr. Gordon K. Dickinson:* I have such a mingling of emotions within my breast that I do not know how to express myself, just how to analyze all this, and find some good reason why these women should get new gowns, the men have to pay for the gowns, and all come over here to give me a banquet. Fifty years is nothing. Anyone can live 50 years if he tries to. Some of these Hudson County men never had any banquets so I think there's some kind of conspiracy to have a good time and make me the goat. I really have enjoyed this evening—to greet people, to see people greet me with smile after smile, and then again to look back 50 years. There are

some things we cannot recall distinctly, but I have a very distinct recollection of some things that have happened. You who have been so kind, Dr. Heyd, Dr. Pollak, the Judge, you've been so kind not because its been I, but because you think you see that which has done something. I am entirely the result of what somebody else has done for me. I could not have done anything without the best of lieutenants and without the best of friends. How many times I've been asked to start a job! I've written a few letters, held a few meetings, and then been credited with the work done by others and not by myself.

At the time of the World War, the government asked me to organize a committee to get the doctors to enlist. I sent out a call to the old reliables; they came to my office and we started to work the problem out. Somehow or other they didn't get credit for what they did. I just called a meeting together. Our state was the banner state, the only state where every doctor enlisted. And so there it is. Take tuberculosis. If not for Dr. Pollak and his great skill, tuberculosis work would never have reached the heights it has in this state. I am nothing in this matter at all except that I'm standing on the shoulders of others, and with the aid of a long list of men who have always been willing to aid me.

Looking back 50 years—you don't know the loneliness of living without friends that have passed on. In the 50 years beginning with Pasteur big changes have taken place. Then everything was guess work. Pasteur killed all quackery, all ignorance. We are now beginning to know what diseases are and what cures are. The young man in my day had to start and guess, we were in ignorance. We hewed the way for the young men of today. They have everything ready for them. What we had to suffer and what the patients had to suffer!

But there is one other thing that has changed also in the 50 years; ethics has changed wonderfully in 50 years. This change is largely the result of so many societies, where we meet and find that the other fellow is very decent. It is a privilege to have lived to the time when surgery has become complete, medicine almost an exactitude.

Again, I want to thank you and thank you deeply, and I can add I'll remember this evening long, and if ever there is anything I can do for the other fellow, it will be done willingly.



## Medical Ethics

### A DOCTOR LOOKS AT DOCTORS

In lieu of our usual articles on Ethics, Esthetics and Economics we are this month giving space to reproduction of a timely, interesting and instructive message from our distinguished New York confrère, Dr. Joseph Collins, copying it, with his permission, from a recent number of Harper's Magazine. Accustomed to hear and to discount the tales of laymen concerning their having "suffered much at the hands of many physicians", we may profitably listen to this "personal experience" by one who is capable of judging whether he was properly dealt with, and who is certainly not predisposed to unfair or unjust criticism of medical men. It is quite possible that each of us may find in this article at least one lesson that is personally applicable.

Many things may be said, and have been said, against doctors: that their conduct frequently testifies a proprietary interest in their patients; that they tacitly agree with those who accord them superhuman foresight and insight; that they understand constitutions and idiosyncrasies merely because they know the individual or his ancestry; that study and observation of disease give them some mysterious knowledge of man's motives and urges; that there is an arcanum of drugs beyond the layman's comprehension.

It is not the purpose of this article to deny or refute these assertions. The charge here made against doctors is that they cannot see the woods for the trees; that they do not see the individual because they are dazzled by the disease; that the treatment patients receive is too frequently based upon what they ought to have, in the light of certain scientific formula, rather than upon careful, sympathetic study of the peculiar experience, mode of life, and emotional equipment of the individual who is to be restored to health.

Plato said that medicine is an art which considers the constitution of the patient, and has principles of action and reasons in each case. It is strange, considering how long this has been known, that we should still be so insensitive to it.

To show that many of the guild, and the leaders at that, are insensitive, I propose to cite a case I know best: my own.

Doctors are always telling one another about "interesting" cases. An interesting case has much the same appeal to the doctor that the latest mode in clothes has to a woman. Neither can help talking about it. It is both instructive and diverting. I have been an interesting case so long that doctors have ceased to talk of me. Now that I

am no longer interesting to them they begin to interest me.

When I was eighteen I gave as much thought to illness as an eagle does to ethics, and I knew nothing about disease. I was a freshman in a large Middle-Western University, endeavoring to live on fifteen dollars a month, eight of which went to an elderly, soft-voiced woman, full of repressions and radiant of religiosity, who let the rooms of her comfortable house for two dollars a week. She was a devout, self-sacrificing Christian; and not a little of the money which she earned so toilsomely went to the support of Baptist missions in the Orient. She was so engrossed with helping God in the Far East that she had little time and less inclination to concern herself with the bodily or spiritual needs of His images in the Near West, particularly her lodgers. So when, after six months in her house, I fell ill of what seemed to be pneumonia, she let me fend for myself. By the time a physician was summoned I was semidelirious. When I regained consciousness I learned that I was an interesting case. I was too ill to care.

The professor of medicine in the university, an old man of much reputation, much of it undeserved, was summoned when I did not "resolve"—that is, when the right lung did not seem to find air any longer acceptable. He suggested that my thorax be punctured with a hollow needle. He was sure it was fluid, the outpouring of an inflammation of the pleura which was compressing the lung. I do not recall my attending physician very distinctly, but I fancy he acted on the principle "If at first you don't succeed, try, try again". He never succeeded, though he never seemed to tire of trying.

I have often heard patients, referring to a doctor in whose care they had been, say, "He did absolutely nothing for me". I cannot say that about my first physician. He did his best to make me buy all the medicines of a drug shop and he had a belief in the efficacy of iodide of potassium quite beyond any understanding that I have since acquired.

As his energy waxed my interest waned. Fever of septic origin has some compensations. It lulls the victim to a stuporous state in which he feels little interest or responsibility.

After several weeks I must have been somewhat better, for I was able to sit up part of the time, but I had not succeeded in losing either the cough or the fever, and I was deplorably weak. If the doctors knew the nature of my ailment they did not share

their knowledge with me. All they told me was that they thought I was strong enough to make the journey to my home in western Connecticut, and that I must live in the open air. It was clear enough to me later that they believed they were dealing with tuberculosis. This was before the days of x-rays and other diagnostic means now in common use, but just about the time when it was beginning to be taught that all pleurisies not associated with pneumonia are tuberculous.

I recall very little of the journey home. I lay for many weeks spent and inert, but gradually my forces ceased to ebb, nature smiled upon me and brought me a restoring balm.

I do not know how "interesting" my case was to our family doctor, a kindly, gentle, wizened, laconic old man who treated disease symptomatically and did not bother much about diagnosis. If a patient had continuous fever it was a question of aconite or veratrum viride; if periodic, then quinin was the drug, as one was dealing with "a kind of malaria". In the same way, if the heart was feeble, or of irregular rhythm, the decision had to be made whether to give digitalis or strophanthus. A small phial was sought in a big, black, worn medicine case which opened like a dictionary, the content was emptied into a glass of water, and the patient took a teaspoonful every few hours. If he got well the medicine got the credit; if he did not the doctor had not been sent for soon enough. These were the good old days which, thank God, we shall never see again!

My first good fortune was nature's caress; my second, an encounter with a real physician. His repute, both as physician and surgeon, extended throughout the state. He had been a surgeon in the Civil War, and on his return he soon dominated the practice of his adopted city. He was a big man with deep chest, soft voice, caressing eye, and gentle touch. His linen was immaculate, his clothing conformed to fashion and, though he was the busiest doctor in the country, he seemed never to be in a hurry. He concentrated his attention on a patient as a burning glass concentrates the sun's rays. It is more than 40 years since I walked into his office, yet I recall every incident as if it were yesterday. He radiated kindness and sympathy, he reflected interest and concern, and he made me feel that my recovery and my future were of vital importance to him. If he made a diagnosis of my disorder he did not tell me. He counselled me to live in the open, to try to regain the

weight I had lost, and to coddle my energy, hoping thereby to store up more. I took to the woods with a dog and the immortal remains of Miguel Cervantes as sole companions, not too far from a cow, and near enough to a village where cod-liver oil and whiskey were to be had. I devoted myself to reconstruction and contemplation. At the end of 6 months I had recovered 68 pounds, had lost an incapacitating breathlessness and a side-splitting cough, and had acquired some knowledge of how nature cures disease.

Then I went back to my beloved doctor, who invited me to become his pupil, and for several months I basked in the shadow of a man who was a more consummate master of the art of medicine than anyone else I have ever met. I have envied the intellect and affects of many men, but those of Robert Hubbard most of all.

## II

I spent two winters in New York studying medicine, if studying it can be called, for in reality it was memorizing lecture-notes, compends, and text-books, and retaining sufficient facts and fictions to pass an examination. Scientific medicine had been born and it was creeping at a snail's pace toward East 26th Street in New York. It had not arrived there, however, when I left. During the summers I shadowed my revered master, and if I have any knowledge of the physician's art I owe it to him.

When I graduated in medicine I was poor in purse and health, the deficiency in health being due in large part to inadequate and insufficient food. I had lost weight and was extremely susceptible to that strange malady of many origins called "a cold". I had been impressed with the penetrating clinical insight of one of my professors who had great repute as a specialist in diseases of the chest, and I determined to ask him to examine me and counsel me that I might grow strong and stay so.

He was a deep-chested man, too, with a strident voice and a keen eye. His *fortiter in re* was genuine; his *suaviter in modo* artificial. During the 8 years I knew him, I heard many flattering things said of him, but I never heard anyone say he was kindly or compassionate. When he died an obituary notice in one of the medical journals said, "He was an admirable business man". When one went to consult him, with \$5, one rang the stoop-door bell; but if one had only a dollar, the basement bell admitted. I went in with the goats.



He heard a brief account of my story, standing, and then proceeded to examine my chest. Despite breathing exercises assiduously practiced and carefully planned calisthenics, I had not been able to overcome the thoracic deformity or to get sufficient air into the lower portion of the right lung to make a resonant sound when the chest was percussed. The professor was visibly astonished and clearly interested.

Like the Ancient Mariner, only with drooping mustache instead of long gray beard, he held me with his glittering eye and said, "Young man, there is only one place where you can live: Arizona. You'd better get out there as quickly as you can. If you go now there's a good chance you'll recover. You see, that old affair in your lung has started up again".

There had been no inquiry of plans or prospects, no solicitude for ambitions or desires, no interest in the spirit of the man whose engine was signalling for gas and oil. That day I determined never to sentence a person on sight, for life or to death.

A dollar and eighty cents would take me home providing I traveled by boat a large part of the way. I would have five cents left toward paying my fare to Arizona, where I had not the smallest intention of going. Then, as I reached home, the great blizzard of 1888 occurred and my fortunes turned.

One of my neighbors, reputed to be rich, had been overtaken by the storm driving home from the station, and that evening, on retiring, he found that the automatism of an important function had forsaken him, and soon he was in great pain. The nearest physician was distant 4 miles, and the night was perilous. "Perhaps the young doctor who has recently come home could do something".

He could, though he had learned nothing in the medical school, and was quite unprepared to practice medicine. His mentor had taught him many things, including how to pass a catheter.

After the snowdrifts had become pools and the crocuses had thrust out their heads I returned to New York with \$20 and a determination to stay.

There were few idle hours in the next 10 years of learning and teaching, practicing and writing, dreaming and planning. Then the machinery began to creak again. Day after day I felt myself thrust between the hammer and the anvil. At each blow the pain in the right side of the abdomen became a little more constant, the apprehen-

sion a little keener, the despair a little more prostrating.

The first colleague I consulted was reputed to have a comprehensive grasp of human pathology. During my student days the opportunity had come to me to row the poppy-boat for a few nights in which one of his wealthy celibates, worn with age and excess, was making the crossing of the Styx, and I was impressed with the gentleness, solicitude, and attentiveness of his physician. On first contact one could scarcely help believing that his speech was not affected, his manner was not artificial, his gestures not studied, his airiness not assumed. But he was the most genuine of men, who had laboriously taught himself the science of diagnosis, and whose failure to acquire the art of it was in a measure compensated for by his honesty and optimism. Later, when confronted with puzzling problems, I rarely appealed to him in vain. He was generous of his time and talent, sympathetic, understanding, and kindly, and a most indefatigable worker.

He listened with interest to my story, from which, being a physician, I deleted the apprehension. He became deeply absorbed by the immobile side of my thorax and at first was inclined to attribute the symptoms to the "old lesion" in the chest, but finally decided that I had chronic appendicitis. It was not the fashion then to go, knife in hand after that vestigial remnant when it began to be troublesome, as it is today. "An operation may be necessary, but the time is not yet."

As I was quite unfitted to go on with my work, I went to a seaside town and followed closely the movements of a surgeon who was summering there. I adhered strictly to the prescribed dietetic régime and its various annoying accompaniments, but all to no purpose. When I returned home at the end of the summer I was in worse health than when I left. It, therefore, seemed prudent to seek help elsewhere.

One of my first important patients had brought me into pleasant, and to me flattering, contact with a physician who had the reputation of having no peer in the field of diagnosis in New York or in the whole country. He had not only trained himself patiently and laboriously in the hospital ward and laboratory, but he was a "born" diagnostician and something of a wizard as well. He looked the part. But if he had any fellow-feeling for a sufferer he could conceal it better than anyone I have known.

After careful and repeated examination

he confided to me that I had tuberculosis of the kidney: "In view of that pulmonary trouble that you had some years ago, etc." I think he enjoyed telling me that I was affected with an incurable disease. Fortunately I did not believe him and, more than that, both his reception of me and his interpretation of my disorder had angered me. I felt I had not been treated like a human being.

At that time I was by way of seeing frequently and intimately, as we were working in the same hospital, a young man whose clinical insight and judgment I had grown to admire and respect. He had come to this country a few years before, penniless and nearly friendless. By virtue of a charming personality, innate kindness, intellectual honesty, and colossal industry, he was forging rapidly to the front. I could do no better than forsake the counsel of the old men and consult the young.

"The thing for you to do," said the young doctor, "is to take an anesthetic and be thoroughly and properly investigated. No one can be positive that it is tuberculosis of the kidney without such examination. And it is much more likely to be a growth than a lesion of the kidney."

This counsel carried me headlong to despair, and in that despair I turned to Baltimore. There I knew there was a wise man who united qualities of head and heart in godlike manner. He had made me feel, as he had probably made thousands of others feel, that he had a unique strain of friendship for me. I admired him, revered him, loved him. I sought him out. It was early evening when I arrived at his door. I told him my mission, but he would not listen to my story. He and his gracious wife were about to take a short drive and I must accompany them and return to dine with them. As we went through the door he inquired casually where I had put up. On our return I found the contents of my bag spread upon and in the bureau of their guest room. Soon after dinner he withdrew, saying some urgent matters demanded attention. When I went to my room I found a scrap of paper upon which was written, "Gone to Milwaukee. Stop here until I return."

When I spent an hour with him, three days later, one would never have suspected that he had anything in the world to do save to learn how I had worked and played, lived and loved.

The only reflection he made upon my impaired lung was, "Nature did one of her best repair jobs for you."

When he had completed his examination, and I awaited the verdict, he said, "What are you going to do, now?"

"Whatever you tell me," I replied.

"Very well, then. Stay on here a day or two longer; I want to think over your case".

The next day he asked me to his study and put an arm affectionately around my shoulders; his saturnine features lengthened, while his Celtic eyes took on an expression of greater gravity, and he said, "Dear old Alcibiades, it's just as serious as it can be. You've got a tumor of the brain".

The more reasons I gave him for the incorrectness of his diagnosis, the more obdurate he became. Finally he displayed not a little offense that I should pose my opinion against his and professed to be injured.

For a moment I forgot that joking was as essential to him as food, and indulged in with infinitely more relish. More than once in early life his propensity for perpetrating practical jokes had come near to thwarting his prospects, and in his maturity it often brought him to the brim of the cauldron. Then like a flash it came to me that it was the unruly half of himself that had the whip hand this time, the half that made him go into the garden, after an attack of gravel, gather a handful of tiny pebbles, and put them in the excretion to dumbfound his physicians when they came to examine it.

My recovery had already set in. I was not an "interesting" case to him. I was an individual who had attempted to live beyond his means, to work beyond his strength. I was a boat with one of its propellers gone that had striven to keep abreast with fully equipped ocean liners and by so doing had strained another propeller. I was a victim of the disease of the ardent, and it required an ardent to detect it.

My recovery was neither rapid nor dramatic, but it was as complete as an ardent's can be, and before it was accomplished, I had redrawn my map of life on a somewhat smaller scale.

### III

Soon a new interest, growing out of the branch of my work in which I was taking keen interest, began to absorb me: the founding of an institution in which nervous and mental disorders, especially those without recognizable or detectable organic change, could be adequately studied and properly treated.

After twenty years of enormous labor,



the War broke out. My colleague in the Neurological Institute, Pearce Bailey, was at once assigned by the Surgeon General to most important duties in Washington. Though our infant enterprise in 67th Street had cast off its swaddling clothes and was prancing about dressed conspicuously and becomingly, it still needed discipline and direction. Nevertheless, Pearce Bailey had small difficulty in convincing me that I should take a commission and assist him to put in effect the elimination tests of Officers' Training Camps. I presented myself for examination and was accepted without the slightest hesitation. After several months of that work I was assigned to duty with the American Red Cross in Italy, and remained there until after hostilities ceased. I returned to Washington and presented myself for examination and discharge.

I had been one of 8000 that the *Aquitania* deposited in Halifax, and *en route* to Montreal the train got snowbound. There was a difference of about 100°F. between the temperature within and without the car in which I traveled. A mild bronchitis was one of the results. It had not fully passed when I confronted the Board of Examiners. The young man entrusted with the chest examination concentrated eagerly upon the thoracic deformity and the adventitious sounds to be heard in the chest on coughing and deep breathing. I sought to enlighten him by telling him it was something Nature had saved from a conflagration that had once nearly consumed me, but he looked at me at once so knowingly and so pityingly that I gave over the attempt and asked him instead where he lived and worked. He informed me that he was instructor of physical diagnosis in a well-known university. If automatons could have diseases, I should select him for their physician.

I tired of his attention when he suggested that I return the next day for an x-ray examination. He was determined to substantiate his findings with what he no doubt considered irrefutable proof. Fatigue lessening my inhibitions and his self-sufficiency exciting my anger, I told him that I had been away from my work 18 months and I proposed to go to New York that evening.

I received my discharge: 30% incapacitated, active tuberculosis right lung, inactive left!

His conduct, attitude, and conclusion did not depress me nearly as much as the conclusions of my medical advisers 30 or 20 years before, but they still gave me sufficient concern to lead me to consult a friend who was then retiring from the practice of his

profession after a brilliant career, a man of penetrating clinical insight, abundant horse-sense, and sound judgment.

I told him of my experience in Washington; he expressed great astonishment, and greater after he had examined me.

"No," said he, "you haven't tuberculosis; in my opinion you never have had, and at your age I feel reasonably sure that you never will have."

The only unpleasant thing about that conference was my friend's reference to my age.

#### IV

Forty years ago we did not know nearly so much about inflammation of the lungs and pleura as we do today. There is no doubt that I had pneumonia and that it was accompanied, as it nearly always is, with pleurisy. In this instance the sheath-shaped membrane whose one surface covers the lung and whose other forms the lining of the chest exuded pus, or a fluid that became purulent, thus constituting the disease empyema. With that condition I had struggled for a year, and its results had affected me for a lifetime. To day the pus in the pleural sheath or cavity would have been discovered and a surgeon summoned. The battle between the pus cells and those white blood cells which have many-shaped nuclei would have been merely a skirmish and not the long drawn-out struggle it was, attended with devastation of the respiratory space beyond reconstruction but not beyond compensation. Forty years of hard and varied work testify that compensation occurred in my case.

Nature does not often overcome empyema without the surgeon's aid; but she did in this instance though none of the doctors save one seemed to realize it. To most of them I presented the pattern of tuberculosis, so they cut the cloth from that pattern.

It does not seriously reflect upon the skill of my first medical attendant and his consultant that they did not find the pus in the right pleural cavity. They suspected it was there, else they would not have repeatedly thrust a trocar into the thorax. But for the others to assume that I had tuberculosis because I had once for many months had fever of a certain type, cough, shortness of breath, emaciation, and loss of strength, and because the chest, when examined, revealed signs of "consolidation," is a fair example of the failure with which I charge physicians—that is, they are so prone to occupy themselves with the theoretic require-

*ments of a case that they lose sight entirely of the human being and his life story.*

They deny this charge, but individual experience supports the allegation, and the popularity and success of numerous therapeutic organizations and agencies outside the medical profession prove it. It is the patient who should be treated in most instances, not the disease.

Nature is able to cope with the majority of diseases that do not have their origin in the patient's ancestry. All that the physician can do is to help Nature, or at least not to handicap her, and to invoke the aid of a surgeon to remove a new growth or an organ which has already been destroyed by disease or accident.

That is all he does when he gives antitoxin or salvarsan; that is what he does when he solicits his surgical colleague to remove an appendix which is threatening to burst, a spleen which has ruptured, or a swelling which is occluding a vital space or passage. That is what he does when he earns the reputation of saving life.

The conduct of physicians that I, as a patient, have encountered convinces me that either they do not appreciate that constituent of personality which psychologists call the affects, and which is usually called the emotions, and the importance of the rôle which these affects or emotions play in conditioning his destiny, well or ill, or they refuse to be taught by observation and experience. There is probably no physician who has not seen patients whose disorders have resisted his efforts restored to health by an appeal only to what is popularly called the "mind". If there is such a physician, he must have had small contact with temperamental people, and he must frequently have turned a deaf ear to dinner-table neighbors.

*There is one medium in which Nature does her best work. It is fearlessness. Apprehension halts Nature, fear fetters her. We profess to believe it, but our conduct belies our profession.*

I recall sending a vigorous, athletic man of 56, the source of whose increasing sciatica I was endeavoring to fathom, to a well-known throat and nose specialist to get an opinion on the propriety of removing tonsils that looked fairly healthy. When the doctor got a report from the pathologist to whom the secretion pressed from the tonsils had been sent, he told the patient that his tonsils should be removed, and then added, "At your time of life, a tonsil operation is a serious matter, just as serious as

an operation for gall-stones. I am going to have a vaccine made and I want you to be inoculated every 5 days for 3 weeks; then I shall operate". I was present and heard the conversation. On reaching the street, the patient said, "When I was young I was afraid to die. I don't think I am afraid now, at least not much afraid save of death from one cause. I don't want to be scared to death. If my tonsils must come out, you must find someone else to do the job".

The physician should not only thwart fear, he should engender courage. Frequently he does the reverse, not purposely, but because of obtuseness, lack of intuition, or of personal experience with disease. Intuitiveness is a very valuable asset in the practice of medicine, and personal experience with painful or protracted illness is another.

In what way could fear be more successfully engendered in an ambitious youth than to have it conveyed to him indirectly that he was the victim of tuberculosis, or in an impressionable young man than by telling him he had an uncommon display of that dread disease?

No one who inquired closely and understandingly into the life I led from the age of 22 to 32 could have failed to realize that my bodily mechanism, even though it were not handicapped, would be likely to creak and snap under the strain to which it was being subjected. Not one of the half-dozen famous men whom I consulted took into consideration the temperament of the individual, or the kind of life he was leading. None of them was interested to know that on arising at 7 a. m. I would hurry to a "studio" and try valiantly for 20 minutes to get in a knock-out blow on the body of the extraordinary septuagenarian who presided there, and then submit to a rub down that would energize me for the day. Not one of them knew or cared to know that I was making every day from 20 to 30 calls, chiefly in the tenements; few, if any, of them were curious to learn that my evenings were spent writing editorials for medical journals, making extracts and summaries of foreign medical literature, getting ready the material for a book; and not one of them inquired how many dispensaries I was attending, or whether I still did obstetrical work at my soul's expense.

Had they expected me to tell them that it was my custom after a hard day's work to have my dinner on my desk, then dictate to a stenographer for 2 hours, follow that with an hour of correction and elaboration



of the manuscript, then breathe a sigh of relief, saying, "Now for some genuine relaxation," and take the relaxation in the form of a rarebit and a draught of ale, then a long cigar and an hour with a poet or romancer, and so to bed, I should have thought it a pose and they an affectation. Their inquiry was limited to "What do you complain of?"

With two exceptions my doctors were not interested in *me*. They were interested in a morbid condition of my body which was enigmatic to them, and in a repair job of Nature the like of which they had not previously seen. They saw the pathologic specimen which I presented, not the psychologic problem. Because the symptoms and signs of disease did not conform to any definite type, they made an assumption prejudicial to my welfare, interruptive of my usefulness, and destructive of my happiness. Of course they may have thought that, being a physician, I knew the importance of living a hygienic life and how to do it; but my very presence should have informed them I was ignorant or culpable.

I find it easiest to forgive the young man who gave me such a distressing discharge from the Army. He was so sure of himself and he felt so sorry for me! The professor who was positive that only in Arizona could I hope to keep alive never betrayed the smallest astonishment, when I met him now and then in later years, that I had been able to withstand New York; and so far as the diagnostic wizard was concerned, he was so absorbed with sentencing other unfortunates that he had neither time nor inclination to read about the reprieves that had been granted. They have both gone to their reward, but I forgave them long before they started.

## V

Doctors are constantly trying to standardize disease. When they encounter a case that does not fit the specifications furnished by clinician or pathologist, they reject it. That is, they assume that it must belong in some other category. One of the reasons why training in psychiatry would be a valuable thing for every practitioner or specialist is that it would teach him that disease cannot be standardized, that the individual must be considered first, then the disease.

Standardization of treatment is not so bad as standardization of disease; still it merits a vigorous protest.

Examination of patients, interpretation of symptoms, application of remedial meas-

ures are turned out like "parts" in an automobile factory. Any manufacturer or engineer who would claim that a set of automobile parts can be utilized for every make of car would be considered mad. Yet that is just what organized or department-store medicine does. Standardized treatment works a cruel hardship on the individual who happens to have a very common disease in his own very personal manner.

My observation and experience convince me that when physicians become engrossed with what is called scientific medicine they not only get divorced from the art of their profession, but they acquire a degree of contempt for it which in many instances amounts to scorn. When they do this they give a leg up to supernaturalists, they prepare a cropper for themselves, and they render the sick a profound disservice.

Our medical schools are not giving adequate consideration to the material that is being presented to them for shaping and developing: the mind of the prospective doctor. They concentrate exclusively on disease. They neglect the student who is to prevent, interpret, and combat it. It is only human nature for the man who deals daily with bodily deformities and mental shortcomings to grow superior to his world. If he happens to be a big and vigorous man himself, this sense of personal fitness in a universe of bodily failures easily breeds the arrogance, bored tolerance, facile condescension, and autocratic dogmatism with which physicians are often charged.

It would be a wise thing to devote a part of medical education to the mind of the physician himself, especially as it concerns his patients. For the glories of medical history are the humanized physicians. Science will always fall short; but compassion covereth all.

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## Special Article

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### REGULATION OF PHYSICIANS BY LAW

#### (Fifth Article)

In the two previous articles we digressed somewhat from consideration of our theme, in order to relate legislative happenings of the moment that had direct bearing upon the question and that served to illustrate some of the points with which we had been concerned. Returning now to the main subject but recalling that one of the points referred to in our discussion of legislative

deliberations was "personal liberty", let us see what Kelly had to say upon that feature of medical practice regulation.

### **The Physician Is the Primary Agency for Preventing and Resisting Disease He Studies Disease**

As a consequence of the prevalence and destructiveness of disease, and the warfare necessary to be continuously waged by the individual and the state against it, many persons have from time immemorial engaged in healing the sick and preventing the spread of disease as an occupation for hire. They are our modern physicians, who have devoted themselves to discovering and cataloging the kinds of disease seen by them, observing and recording their origins and differentiating characteristics, diagnosing their presence in the individual person, and discovering and applying remedial agents for curing them. They have amassed the world's great store of scientific information about diseases and their treatment, preserved in thousands of books.

#### **His Is the Greatest of the World's Professions**

The physician's occupation has become probably the world's greatest profession; great in the number of persons devoting their lives to it; great in their intellectual attainments, high character, and the respect and admiration in which the world holds them; great in the priceless knowledge, skill and service supplied by them to relieve the suffering and sorrow of men, women and children; great in their diligence and progress in acquiring new knowledge and more skill; great in the supremacy which they have attained, and are still extending, over destructive diseases; and great in their power to insure health and happiness to all mankind.

The physician is the only agency actively devoted to studying, preventing and eradicating disease, and is the chief subject for consideration by the state in making provisions for protecting the public health.

#### **It Is Necessary and Proper to Regulate the Physician's Occupation by Law**

##### **Objects of Regulation Not Understood**

The occupation of healing, on account of the intimacy and importance of its contact with the people, and its effect on the public health, has long been the object of regulation by law very broadly as to the intellectual attainments and moral character of its adherents. The necessity, the justice, and the legality, of much of the regulatory legislation applied to the occupation of healing have been repeatedly considered in legislatures and litigated in courts; and though its legality has been determined in multitudinous cases in the highest courts and its precise philosophy has been embodied plainly in legislative acts and in opinions of great jurists, they are both persistently misrepresented, and on that account are widely misunderstood. Lawyers misunderstand the medicine of the subject; physicians misunderstand the law of it; and laymen quite naturally misunderstand both.

##### **Laymen as Judges of Physicians' Qualifications**

The legislative regulation of the physician's occupation would probably be unnecessary if every person could accurately determine for himself the physician's ability and character, because,

no person being willing to submit the care of his body to ignorant or immoral healers, they could not thrive. But the layman's unaided estimate of a physician is more likely to be wrong than right. An ignorant or fraudulent quack, without conscience, with no object but plundering the sick, by untruthful advertisements of self-praise in newspapers, often in large cities secures in a few days a more numerous clientele than a learned and upright physician has been able to attract in a lifetime. Determining whether a physician is competent to practice his profession involves appraisement of the physician's understanding of matters of science with which most persons are unfamiliar. Determination of a physician's moral character is a task in which persons of the widest experience with men are not so sure of their judgment as to refuse the assistance of those who have made an actual investigation and ascertained the facts about the particular man.

#### **The Personal Liberty Argument**

There are those who assert that a person's disease is exclusively his own concern, and that his employment of an ignoramus to treat it, or his refusal to treat it at all, is equally so. But, since disease, though it originates in the individual person, is transmitted by him unwittingly to other persons without their knowledge or consent, and since in many other ways it directly jeopardizes the happiness of other persons, and impairs the state itself, a person's disease manifestly is not exclusively his own concern, but is also the concern of every other person and of the state.

#### **There Is No Personal Liberty to Commit Frauds or Employ Crooked Doctors**

It is a fraud of a most dangerous and reprehensible character for a man to secure employment of a physician to care for the sick upon the representation that he has knowledge and experience in treating diseases which he does not possess. No man has personal liberty to commit a fraud. From the point of view of the state's proper function in the administration of justice, it is not sound argument to say that if a man wants to employ a crooked or incompetent doctor for himself and his dependent family he ought to be allowed to do so. There is no right of personal liberty to patronize a fraud. Nor is such an argument in harmony with our modern conception of the duties of the state. No such argument is used to favor the frauds that touch our pocket-books. We have come to regard health and life as more important to be preserved than money.

Legislation of this character is in fact necessary to promote and maintain the public health; and its necessity is evidenced by its general adoption.

It may not be consistently asserted, therefore, as some persons have contended, that the ignorant or immoral doctor must out of respect for personal liberty be given the right to ply his fraud under a theory analogous to  *caveat emptor*, the obligation thus being put upon his sick patient to protect himself.

In the first place, the patient's health is not exclusively his own improvidently to dispose of, but is in part the state's, and his disease is not only a menace to himself but to his neighbors; so that the kind of treatment which he takes is the business of all of us.

In the second place, such a policy may not be



logically or fairly indulged by the state in respect to the priceless possession of health and life, in view of the settled policy of utmost protection thrown about mere property concerns of far less importance to the people, in the regulation of lawyers, bankers, brokers, railroad companies, plumbers, horseshoers, and innumerable others, not to dwell upon the further legislative regulation of barbers, manufacturers of foods, venders of milk, packers of meat, and many others of similar employment. Such illustrations may be indefinitely extended by reference to the prohibited importation of trees from Japan, and the legislative crusade against barberry bushes, the Canada thistle, English sparrows and such like.

The good of the whole people is the avowed object of the government, in the pursuit of which individual convenience and preference and particular occupations must give way; and the measure of personal liberty must always be adjusted to the necessities of the application of this universally accepted principle of political administration.

(To be continued)

## In Lighter Vein

"There are two sides to every question," proclaimed the wise man.

"Yes," said the fool, "and there are two sides to a sheet of flypaper, but it makes a difference to the fly which side he chooses."—Answers.

### Youthful Opportunist

A very small boy was trying to lead a big St. Bernard up the road.

"Where are you going to take that dog, my little man?" inquired a passer-by.

"I—I'm going to see where—where he wants to go first," was the breathless reply.—United Presbyterian.

### Betrayed His Confidence

His—"What do you mean by telling Dot I'm a fool?"

Harry—"I'm sorry—I didn't know it was a secret."—Bell Hop.

### Choice of Fuel.

"What, according to your view, is the burning question of the day?"

"Shall I eat or buy gasoline?"—Florida Times-Union.

### Bumping the Bumps

"What is a detour?"

"The roughest distance between two points."  
—Christian Science Monitor.

### Lingerie Note

Teacher—"What does unaware mean?"

Susie—"It's the last thing you take off at night."—Pitt Panther.

### 110 Per Cent. American

The booze was found to contain only 44 per cent. alcohol and 66 per cent. formaldehyde.

—Memphis paper.

## Observations from the Lighthouse

It is with pleasure that we present a series of abstracts dealing with a much neglected topic—colitis—which happens to have been discussed in one symposium and several independent articles published in recent months. The large bowel is probably more frequently than supposed the main seat of trouble that is evidenced only by remote or reflex symptoms, and too often we engage in therapeutic consideration of the symptoms rather than a search for the source of trouble. In this review attention is directed to several features of this problem.

### Etiology and Morbid Anatomy of Colitis

According to D. M. Cox (Kentucky Med. J., 25:30, Feb., 1927), the injurious agents in the causation of colitis may be of a mechanical, physical or chemical nature. Mechanical agents include cancer, masses of parasites, adhesions, kinks, hernias, extrinsic tumors and abnormalities. Physical agents include extremes of temperature (a very hot enema causing necrosis of the superficial portions), radium and x-rays. Chemical agents may be inorganic, such as acids, alkalis and the heavy metals—mucury, lead and arsenic; or organic, such as toxins of various infectious diseases—tuberculosis, syphilis, bacillary dysentery, typhoid, streptococcus, staphylococcus, and certain strains of colon bacillus.

A fourth type—mucous colitis—is of unknown origin. A large amount of mucus may be passed in a variety of conditions, but true mucous colitis is a neurosis, which usually occurs in extremely nervous and irritable patients. It is no easy matter to determine whether the neurologic condition is secondary to the colitis, or vice versa. X-ray examination shows the colon to be tonically contracted and irregularly segmented, cecum, toneless, distended and often displaced.

The pathology caused by mechanical injurious agents varies with the type of agent. Cancer ultimately involves the entire circumference of the intestine, causing marked thickening of the wall and gradual diminution in the size of the lumen at that point, with a compensatory dilation above. Masses of parasites may cause local irritation and very rarely obstruction. Adhesions (postoperative or tuberculous) may cause a kink or circular obstruction. Extrinsic tumors (fibroid leiomyoma, pregnancy, hypertrophied spleen, hypernephroma, and sometimes retrodisplacement of the uterus) cause pressure with partial or complete obstruction. Congenital abnormalities and the idiopathic dilatation called Hirschsprung's disease usually give rise to an inflammatory condition and faulty elimination.

Tuberculous ulcers have the following characteristics: they are rounded or oval; the edges and bases are infiltrated, often caseous; they generally involve the submucosa and muscularis. If the process is rapid, there is no attempt at healing; if slow, there is proliferation of fibroblasts with scar formation which only rarely advances to the point of stenosis of the intestine.

Syphilitic lesions tend in time to heal, apparently as a result of acquired immunity.

Bacillary dysentery is an infection, chiefly of the colon, by a specific organism which may be found in the stools of about 65% of cases, if the stool is cultured hot. Amebic dysentery, caused by *Entameba histolytica*, is prevalent in tropical

countries and common throughout the United States, particularly in the south, where its incidence increases sometimes to epidemic proportions. Of 182 cases reported by the Johns Hopkins Hospital, 171 were in males. It is seldom found in children. Amebas are often numerous in the necrotic tissue. The ulcerations extend widely beneath the mucosa, undermining in all directions. The edges are swollen and gelatinous.

Apart from these specific types, there is a variety of ulcerative colitis, sometimes of great severity, not uncommon in the United States and England. It is a disease of unknown origin, affecting the sexes equally. At postmortem the colon is dilated; often the walls are not hypertrophied; ulceration is extensive throughout the colon—most prominent, according to Einhorn, in the lower part of the descending colon. The proctoscope generally reveals marked engorgement of the rectum, irritability, tendency to bleed and a decrease in caliber. No one organism has apparently any definite relation to the disease.

### Colitis, Symptomatology and Prognosis

Broadly speaking, says B. J. O'Connor (Kentucky Med. J., 25:35, Feb., 1927), the symptomatology and prognosis of inflammations of the large intestine are as varied as the etiologic factors. These variations rest particularly in the finding and identifying of the specific bacteria, the toxic food, the noxious chemical or the systemic disease as the materies morbi.

All forms of inflammation of the colon have certain symptoms in common. Starting with diarrhea, we find that the number of bowel discharges may increase to 30 or more per day. The nature of these may vary. If there is an accompanying inflammation of the small intestines, they are greenish, with brownish particles or lumps in a watery, mucous fluid. If limited largely to the lower bowel, they are rather serosanguineous, or distinctly bloody.

A study of the stools in infants not only denotes the portion of the bowel at fault but also points to the food responsible. The foul, greenish, lumpy, semimucous stool denotes fat indigestion. The mushy, gaseous, yellowish stool with sour odor points to excess of carbohydrate. A history of vomiting, nausea and profound anorexia often accompanies the diarrheal manifestations. Jaundice may also be present.

In chronic forms of colitis, constipation may alternate with copious evacuations of mucoid watery movements. Bacteriologic examination of stools establishes the diagnosis in the bacillary or streptococcus dysenteries, cholera and botulinus. In addition, animal experimentation and chemical tests may be required to clinch the diagnosis of ptomaine, mercurial, arsenical or other forms of gastro-enteritis.

The prognosis of colitis is generally favorable. Prolonged measures of treatment, based chiefly on the etiology, will usually bring about complete cure. The healing of ulcerative lesions may necessitate surgery to overcome stricture and adhesions. In some instances the surgeon may be compelled to resort to colostomy, resection, suspension or other radical procedures.

### Mechanical Therapy and Dietetics

The therapeutic suggestions advanced by R. R. Elmore (Kentucky Med. J., 25:36, Feb., 1927) are based on the assumption that some malposition of the colon is not only present but that

it forms an etiologic factor of the colitis. When the lower segment of the abdominal wall gives way, the capacity of the abdominal cavity is increased and the abdominal organs, including the transverse colon, respond by sagging lower in the cavity. A painstaking and persevering effort to restore the potency of anterior support will frequently be rewarded by disappearance of clinical symptoms, and this may occur in a patient who bears many scars as evidence of adventures in pursuit of health. The tone of the abdominal wall may be improved by massage or physical exercise, such as flexing the limbs on the abdomen. For both of these procedures the patient should lie on his back with hips elevated higher than shoulders.

The elastic abdominal support has been generally abandoned in favor of some form of fabric and mole skin adhesive. It is well to have several types at command to suit individual needs. The narrow belt undoubtedly gives a better uplift to a sagging colon, and is more comfortable than a broad belt extending to the costal arch.

As to diet, the milk treatment (either sweet or cultured) has sometimes given excellent results. Such a course is most successfully followed out with the patient at rest in bed—on an outdoor porch, if possible—for 4-6 weeks. The milk is given in small quantities at frequent intervals during the day, from 7 a. m. to 8 p. m.

The Massachusetts General Hospital daily diet for colitis consists of lean meat, 300 gm.; whites of 8 eggs; toast, 2 slices; macaroni, 100 gm.; cream cheese, 50 gm.; fat free milk, 2 glasses. Approximate caloric value 2000 calories.

The Kellogg regimen prescribes a low protein bulky diet, consisting largely of fruits, fresh vegetables and whole grain preparations. Bran or agar-agar, or the combination, is used freely at every meal, as is also liquid petrolatum,  $\frac{1}{2}$  to 1 oz. Fresh and stewed tomatoes, lettuce and celery may be given freely, also as much fruit as the patient can eat. For persons with hyperacidity nonacid fruits (bananas, pears, white cherries, melons) are used. It is sometimes necessary at first to give an enema, at 80° F., once a day. In cases of spastic condition of the descending colon hot saline enemas are used, after which there is introduced into the colon—with the patient in the knee-chest position—a mixture consisting of several ounces of liquid culture of *B. bulgaricus* and *B. bifidus*, to which has been added a small amount of malt sugar and boiled starch. Too much cannot be said in favor of bran and liquid petrolatum used in combination, one supplying the bulk and the other the lubrication. When the mucous membrane is atrophied it is of advantage to introduce into the lower colon at night 3-4 oz. of a preparation of petrolatum which melts at the temperature of the body. Such a preparation may be made by melting together equal parts of liquid petrolatum and paraffin.

### Colinic Dilatation and Coloptosis—Surgical Treatment

It is the opinion of J. Hunter Peak, who contributes to the foregoing symposium a paper concerning the surgical aspect of the subject, that in all cases except Hirschsprung's disease dilatation of the colon is due to some mechanical interference with the onward excursion of the intestinal contents. Any portion of the large intestine may be involved, but in one-third of the cases reported the sigmoid was the site. In 15%



of all cases the entire length of the large intestine was dilated, the distended portion in many instances reaching 6 in. in diameter. In Formad's cases the intestine contained 40 lb. of feces. Some patients have been known to go for a year without a bowel movement.

True Hirschsprung's disease is a very rare condition occurring in early life, but pseudo-Hirschsprung's disease may be encountered at almost any age. Hunter has seen only 3 cases, 1 in a girl, 2 in boys, aged respectively, 10, 11 and 13 years. The boy of 11, who had not defecated for several months, left the hospital after thorough evacuation, the parents refusing operation. The boy of 13 and the girl of 10 came to operation. Median incision in the former revealed a misplaced ductus venosus, which instead of forming the round ligament to the liver, was attached to the outer border of the ascending colon; transverse and descending portion of colon 5-6 in. diameter; mesocolon descended in loop over the old venous duct causing obstruction of the intestinal lumen through an extensive volvulus. Operation consisted in ligation of the duct at the umbilicus and its attachment to the ascending colon, thus liberating the volvulus. The ascending colon was sutured to the right side where it belonged, and that part which would correspond to the splenic flexure was sutured to the abdominal wall at about the tenth rib. Descending colon was sutured to left side and the sigmoid was sutured in 3 places, to the abdominal wall below and to the left of the umbilicus. The prolapsed transverse colon was sutured in place by the technic of the "hammock operation" recommended by Dr. Coffey.

As soon as the boy rallied sufficiently from the operative procedure, enemas were given and large doses of castor oil with 1-2 min. croton oil in each teacup of castor oil. On the third day there was complete evacuation of an astounding quantity of feces and all abdominal distention had disappeared. The patient made an uneventful recovery and had but little trouble thereafter from constipation, largely because of the parent's excellent care. They never permitted the child to go 48 hours without a cathartic if he needed it. He now seems to be in perfect health. Colitis was never a factor in this case.

A similar operation performed in the case of the girl for a somewhat similar condition did not produce quite such satisfactory results. It was 3 or 4 months before the child recovered from distention and colitis. She then defecated every 2-3 days instead of having an alvine evacuation every 2-3 months, but the coöperation of the mother could not be secured in the aftertreatment. Eight months later the child seemed well and happy, whereas before the operation she had been listless and apathetic.

In general, surgical treatment consists in correcting whatever anatomic anomaly is found. If the entire large intestine is at fault it should be resected; if only a certain portion is involved, only that amount necessary to accomplish a proper anastomosis should be resected. Colopexy, colonic implantations, permanent colostomy, entero-anastomosis have little to recommend them except in isolated cases such as the two here reported.

#### Chronic Colitis

In the absence of laboratory evidence, C. E. Hagyard (Northwest Med., 26:62, Feb., 1927) expresses himself as satisfied from clinical observation that this infection is probably focal in

origin, most likely due to a streptococcus which causes chronic progressive changes in the wall of the bowel. About 50% of the 230 cases forming the basis of this study showed large and infected tonsils or pyorrhea. Chronic cholecystitis occurred in 59 cases. As to sex, 82 were males, 148 females. Onset usually occurred in early adult life. It is difficult to tell whether chronic constipation is a cause or effect of this condition. Methods used to overcome constipation—cathartics and coarse foods—cause enough irritation to predispose to infection or to increase an existing colitis and insure its chronicity. The general symptoms, such as apathy, weakness, loss of weight, anemia and dull headache, are due, in Hagyard's opinion to the low grade infection which may, with exacerbation and remission, last over a period of many years. Recent work has tended to discount the theory of autointoxication. Among other more commonly noted symptoms, cardiovascular asthenia is often present, manifested by rapid weak pulse, cold extremities, exhaustion and low blood pressure. A number of cases of hypertension were observed for which no cause was found. In some instances patients were taking magnesium sulphate or other laxative for the hypertension, thus keeping active an existing colitis.

A carefully elicited history and palpation of the abdomen with the aid of the fluoroscope and a barium enema are two cardinal points in diagnosis. In this series 50 patients had been operated on in the course of their illness for chronic appendicitis. In all, 161 operations had been performed, most of them with the hope of relieving abdominal symptoms. Differential diagnosis must rule out cholecystitis (which was co-existing in a surprising number of cases), appendicitis, exophthalmic goiter (distinguished by chronicity of gastro-intestinal symptoms), pelvic inflammation, gastric and duodenal ulcer, gastric neurosis, tuberculosis, enteroptosis and intestinal stasis, carcinoma of the colon. The author is convinced that fewer mistakes in diagnosis would be made if the sigmoidoscope were used more frequently.

The active treatment of colitis requires especially the removal of foci of infection. In relatively early cases the interdiction of cathartics and elimination of bran and other roughage from the diet may effect relief. In serious cases rest may be advisable but the tendency to introspection and invalidism makes Hagyard slow to recommend a rest cure in the average chronic case. A bland diet and elimination of cathartics are essential. Olive oil, petrolatum oil, and agar-agar are good substitutes. Enemas are of great value, systematic use of plain hot water being attended by excellent results. The natural tendency to add antiseptic substances gets one into trouble by irritating an extremely sensitive tract. Oil enemas are invaluable.

Drugs give little aid. Stringents or antispasmodics may be required in certain cases. Drinking quantities of warm water when the stomach is empty stimulates as free a flow of bile as does the introduction of magnesium sulphate solution through the duodenal tube, and supplies more bile salts than you can put in many capsules.

Surgical removal of intra-abdominal foci of infection is to be advocated only after a careful study of each case and failure to get results otherwise. In chronic invalids with contracted, deformed or ulcerated colons there is a distinct indication for surgical treatment. Patients complaining of long standing constipation, obscure

abdominal pain or gastro-intestinal symptoms, are entitled to a proctosigmoidoscopic examination before treatment is recommended.

### Progress in Proctology

Under the subheading of "Ulcerative Colitis", T. Chittenden Hill and E. Parker Hoyden (Boston M. & S. J., 196:436, March, 1927) describe the experimental work which has been done by Bargen and Logan at the Mayo Clinic in regard to the type of colitis of unknown origin. From a series of 68 cases of definite ulcerative colitis in humans, they succeeded in isolating from the depths of the ulcers in 80% of the cases a gram positive, lancet shaped diplococcus. From 20 healthy individuals they were able to recover this organism only once. With a pure culture of this organism 139 rabbits were injected intravenously. Forty-five developed colon lesions identical with these in humans, and no lesions elsewhere in the body. Similar injections with streptococci (Rosenow) gave no such results. Of 18 rabbits injected with this diplococcus, all were dead in 5 days. Eight showed ulcers of the colon. The authors recovered the organism from the heart's blood and again produced the lesions by reinjection into other rabbits. They prepared a vaccine from the human cultures and instituted treatment that gave very satisfactory results in nearly every case. If such results can be secured in other clinics we may find that we are able to conquer this affection.

## Communications

To the Editor of the Journal:—

Will you kindly correct the following two errors in the Communication on Group Life, Accident and Health Insurance published in the April number of the Journal, page 254.

It should have been "The Commonwealth" (not The Commercial) "is the oldest Casualty Company in Philadelphia." Another, and more serious error, was in omitting the words "next birthday" in the table of premiums by age. After each age named these words made it plain that the age determining the premium was that on the next birthday, e. g., one who is in his fiftieth year pays the premium of 50 years.

Policies have already been delivered to the present applicants and more members are being constantly heard from.

Frank W. Pinneo, Chairman.

### SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN OF NEW JERSEY

(Forty-fifth annual report, May, 1927, of the Board of Trustees, submitted by Chas.

D. Bennett, M. D., Secretary.

The "old order changeth, giving place to new". Again we are compelled to record the passing of one of our older member-officers. On October 19, 1926, Dr. Charles F. Underwood terminated his earthly labors. He joined the Society as a Founder in 1882 and was elected a Director in 1901. He served as an efficient Chairman of the Standing Committee for many years and on May 8, 1918, was elected Vice-President, this election carrying with it the

Chairmanship of the Custodians of the Permanent Fund. All of these positions he filled with zeal and ability. He was one of the most regular attendants of the Board meetings and while of positive opinions was still charitable and kindly in expressing his ideas, and his influence will long be missed by the remaining Trustees.

Carrying on his love and loyalty to our Society, Dr. Underwood requested that the benefits accruing from his membership be returned to the Permanent Fund, and that the name of his beloved wife, who preceded him in death, should be placed on the Roll of Benefactors. His family agreeing to this, our friend's instructions have been carried out and his family name will continue on our Roll, but now among those who have, by their last contribution, again expressed their wish to be of service to the Society and its beneficiaries.

Filling the official vacancy caused by his death, the Board elected Dr. C. D. Bennett, Vice-President, to serve until the next Annual Meeting.

The year past has been a prosperous one for the Society. Only 6 deaths have occurred among members: Doctors J. C. Applegate, H. I. Kauscher, F. M. Paul, E. J. E. Tetreault, C. F. Underwood and J. T. Wrightson. Two members have been dropped for nonpayment of assessments, 30 new members have been elected, and 3 have resigned, making our present membership 503.

Your Board has deemed it wise to shift some of the securities of the Permanent Fund and accordingly some Liberty Bonds have been sold and the proceeds invested in first mortgages on improved real estate, with principal and 5½% interest guaranteed. This exchange resulted in a considerable increase in both the principal and the income of the Fund, as will be shown in the Report of the Custodians. As has been our custom for several years, the Board distributed at its December meeting \$450.00 to worthy beneficiaries of the Society, thus endeavoring to carry out and deserve the pledges implied in the Society's name. Our Permanent Fund grows steadily and now amounts to \$38,797.81 with an income last year of \$1699.24. Our Custodians have exercised their usual care and diligence in handling the Fund's affairs and they and our efficient Treasurer deserve the thanks of the Society for the time and trouble which they have so willingly granted.

Our experiment of printing an application blank in our Report has been quite successful. Several of these blanks have returned to us and so we repeat such printing for this year. Should additional blanks be needed, they are at your disposal for the asking.

In 1919, at the close of the World War, our benefits were averaging \$331. In the 10 years that have passed this amount has gradually risen to \$380. Of course, this means that we have been adding to our membership year by year enough new members to discount our deaths and other losses due to resignation, etc., sufficiently to raise our death benefits \$50. This may not appear to be a great deal of progress to make in 10 years but when consideration is taken of the fact that 95% of the new members were obtained through the tireless work of the 13 members of the Board of Trustees, the result is not unfavorable.

If, as has been suggested before in our yearly reports, each member would make it a point to step into the office of the young man who has settled in his neighborhood, point out to him



the fraternal spirit which organized the Society, and which has kept it flourishing over 45 years, we are sure he would be only too glad to lend his support and join us. Please try to use the application blanks and see if we can make the membership grow to the coveted 670 so that we can pay \$500 benefits.

As your Trustees watch the passing of its older members, they are concerned that the ideals and practices of nearly half a century should be continued by their successors. Only one of the Founders of the Society remains on your Board and sooner or later—let us devoutly hope much later—the Trustees will be entirely made up of men who will only have inherited the ambitions and hopes of your bygone officers. It has been for years the aim of your Board to educate their successors to carry on the plans that were so wisely formulated in the original scheme of the Society and to find among the younger members those who would be willing to assume these responsibilities and who would cheerfully give the time and attention necessary to fulfill the obligations of a Trustee. All in all, we have been fortunate in this endeavor. We have succeeded in interesting some of the younger men and have proved their value as your officers, and those of us, who, like the gladiators of old, cry to you, "morituri salutamus", feel that the work so ably inaugurated and so patiently and faithfully persisted in for these many years will be perpetuated by those on whom the burden is falling.

A society such as ours cannot stand still. It should steadily grow in power and influence and constantly be widening its field of usefulness. There are many ways in which this may come about. Vistas of progress appear to us from time to time many of them dim, and definitely, as yet, leading nowhere, but still, all such opening paths should be carefully explored in the hope that some, at least, shall lead us to regions of better living, better loving and better, more kindly and more efficient help for those who, in Holy Writ, were said "to be always with us".

Whether these things shall be rests with you younger men, but your present Board has every confidence that disinterested service and cheerful and intelligent coöperation on your part will effect and make permanent the benefits for which we have all been struggling these long years.

CHARLES D. BENNETT, M. D.,  
Secretary.

#### A VISIT TO THE CLINIC OF DR. JOHN B. DEAVER, LANKENAU HOSPITAL, PHILADELPHIA

(Letter from John Hammond Bradshaw, M. D., F. A. C. S., Orange New Jersey.)

Being a New Yorker, I was brought up on that hardy perennial, "There are no cemeteries in Philadelphia, for the dead walk the streets". But if anyone thinks that at the present day Philadelphia is slow, he is going to have another "guess". Back in Colonial times, the people of the City of Brotherly Love did not consider their doctors slow, for they named their most representative surgeon *Benjamin Rush*. New York, too, in those times gave high tribute to Philadelphia; for did not Alexander Hamilton, one of the most brilliant and discriminating minds of all American history, go down to Philadelphia and obtain

Benjamin Rush to stand up to the death with him on a beautiful but sad and bloody Spring morning in Weehawken, when the rapid bullet of Aaron Burr made swift action of a quick surgeon imperative?

Once while the writer was watching John F. Erdmann, the brilliant New York surgeon, sew up his fifth laparotomy (within the hour), the same Erdmann said, "Doctor, why do you waste your time in European Clinics, when you have Deaver at the Lankenau?". This is high tribute; Erdmann is not *slow*.

Years ago, when I was only just drinking my surgical milk, Deaver in Philadelphia was going strong. John V. Shoemaker, John B. Roberts and John B. Deaver were the three Philadelphia Johnnies who in those days looked good. Where are the other two?

There is a peculiar charm about medical Philadelphia; with its Pennsylvania Hospital started by Benjamin Franklin, it has always ranked as a medical centre. Query: "Why did Franklin not 'start something' in New York?" Probably Benjamin Rush was in his time the very first surgeon in America. There follows such a galaxy of names that only a few can be mentioned: D. Hays Agnew, John Ashurst, Weir Mitchell, the Martins, W. W. Keen, de Schweinitz, Rodman, Hare, White, Clark, de Costa, the Cohens, and Babcock—all names that will go down in history as eminent in their day.

I saw John B. Deaver for the first time at one of the early meetings of the American Medical Association. It was customary at those meetings to have the principal surgical noise made by the great surgical guns. Will Mayo, John B. Murphy, Albert J. Ochsner, Crile, Marcy, John B. Deaver (not to mention a few others) could be depended upon to hold the crowd. After hot discussions and the audience of a thousand doctors had been sitting in excitement and exhaustion for some hours, Deaver would be pushed up and electrify a tired crowd. His remarks were always listened to in breathless silence and followed by applause.

Now this same Deaver has been operating in the same hospital in Philadelphia for over 40 years. John D. Lankenau once built a hospital. For years it was called the "German Hospital". Our little (and unfortunate) unpleasantness with Germany in 1917 made the name German Hospital sound displeasing. This hospital has since 1917 been called with good reason after the millionaire who gave all the money—"The Lankenau". While not one of the greatest hospital in size, it is a very active hospital in work, as the report tells us that last year with between 4000 and 5000 admissions there were between 4000 and 5000 operations. Few hospitals can give a like showing!

A man who performs for 40 years about 20 operations a day *should* wear out. I had not seen Deaver for 15 years. Actually, the man looked younger than when I saw him last. This is another record! I do not need to apologize in a letter of this kind for personalities. But it is a pleasure to see a man who has been doing big surgery for so long keep all his snap.

Deaver's arena is a large circular room with a dome, situated on the ground floor of the hospital and, keeping to the old Philadelphia tradition, the amphitheatre is constructed, of course, of steps of white marble. Over the clock is the warning, NOLI LOQUI—NOLI TANGERE. The walls are saffron yellow and the illumina-

tion from the skylight of the dome is but negative, for Deaver uses 3 other sources of light: a battery of 7 in the operating table lamp directly overhead is reinforced by 40 electric globes in a circle beneath the dome. But he seems to get more comfort out of his small stick lamp (Crile principle).

When he has an important case to show, Deaver first reads the history, with not a little impressement, himself. As he reads, he asks questions: "What does this mean?" The hundred or more visitors watching the operation follow every word with keen attention. Then follow about a dozen operations. As the surgeon goes into action at 12 noon, he spends the entire afternoon—sometimes till well after 6 o'clock—in operation (6 hours of strenuous work). This testifies to the virility of the surgeons. I do not know his age but he graduated from the University of Pennsylvania in 1878—some 49 years ago. Now figure.

One of the longest operations on the afternoon's program was excision of a cancer of the transverse colon, really a colectomy. Deaver works with one assistant and with unhesitating speed. Speaking of cancer of the great gut, he impressed upon the observers the importance of remembering that cancer cases of the ascending colon generally get well, and of the descending colon generally die—an observation with which most surgeons will agree.

A cholangitis case was particularly interesting. Probably there is no emergency in all surgery that so tests a surgeon's ability and nerve as vast intra-abdominal hemorrhage. We all know how apt is a jaundiced condition to increase the tendency to bleeding, even in the best of cases. When, however, one meets a ruptured portal vein and the blood spouts up in jets the thickness of the little finger, one must act quickly, else in about 3 minutes the patient is dead. I will not go into details, but, briefly stated, the finger was in this case hooked into the foramen of Winslow and the spouting vessel compressed until the clamps were applied. The patient was returned to her bed in fair condition. Then followed a talk on these conditions and another case, convalescent, was brought in from the wards, and he was asked to tell us in his own words how his colliquative sweats stopped immediately after his gall-bladder was drained.

A large appendiceal abscess case in a female was opened through the vault of the vagina; a half-pint of stinking pus was thus saved from douching the upper abdomen. Following this, as an example, a warning was given that young women are likely to get infected tubes and sterility from neglect of prompt operation in early attacks of appendicitis.

The few appendicitis operations that followed were interesting not so much for the cases themselves as for the "side talk" of the surgeon: "Where did this patient have his first pain?"—Deaver asks his House Surgeon. The doctor replies: "In the lower right quadrant." "Then," says the Professor, "this is not the patient's first attack, for the pain in appendicitis of the first attack is referred to the stomach or to the region of the umbilicus."

#### If This Is a Sample.

She—"I hope you will like my new hat, Robert. I bought it on your account."

Fiancee—"On my account? Not yet, my dear; this is still on your dad."—Boston Transcript.

## Medical Book Reviews

(Royce Paddock, M. D., Department Director.)

HYGEIA, OR DISEASE AND EVOLUTION—Burton Peter Thom, M. D., New York, E. P. Dutton & Co., 1926.

As one of the "Today and Tomorrow Series", this booklet aims at a brief and popular survey of disease as a factor in the evolution of man. Since the relation of disease to evolution is as yet almost entirely a field of speculation rather than observation and experimentation, these defects in our knowledge of the subject are strongly represented in the book. Generalities are of course here unsupported by accurate data, but the language used is sometimes so technical that a false impression of knowledge is given. Added to this is an attitude of extreme and uncritical optimism, which gives such sentences as the following—"But the passing of disease will bring about the passing of crime and vice". To the reviewer, the book seems not to be well fitted for its aim.

THE HUMAN BODY—Marie Carmichael Stopes, New York and London, G. P. Putnam's Sons, 1926. The Knickerbocker Press, Price \$2.50.

Intended to supply the need for a small but fairly complete account of the workings of the human body, this book appears to fulfill its object. Its excellence lies in ease of reading, good illustrations, and logical arrangement. The author shows a distinct aptitude for simple exploration and has successfully avoided scientific terms which would be confusing. Many of these good qualities have been conspicuous by their absence from the older manuals of this sort. In addition, a common sense account of the meaning of the sexes and a brief review of the process of reproduction are features worthy of mention, since they have been either slighted or omitted in many previous publications intended, as this book, for older children and young adults. Whatever faults are evident are almost natural to this type of book, and less evident in this than others. Explanations along biologic lines, when simple, must often be unlearned later, when the facts are found to belie them. There are not many instances of this kind in the book, although at times the expression seems simplified or idealized further than the facts would warrant. In general the book seems to be one of the best of its kind.

A PRACTICE OF PHYSIOTHERAPY. By C. M. Sampson, M. D., Cloth, Price \$10. P. 620, with 146 illustrations. St. Louis. C. V. Mosby Co.

(Reviewed by H. H. Kessler, M. D., Newark.)

This is really a second edition of Sampson's first book, "Physiotherapy Technic", published in 1924. The material, with the addition of several small chapters, has been re-arranged into 3 parts: Physics and Technic, Clinical Application, and General Considerations.

No one can read this book without being startled by its peculiar style, yet it is undeniably typical of the manner and attitude of Sampson in speaking and lecturing. Overflowing enthusiasm, dogmatic assertions, quasi-scientific explanation of scientific phenomena, as well as digressing harangues against the accepted body of medical knowledge, cause a good deal of scepticism in the mind of the reader as to the value of the book. Yet,



if one can overlook these shortcomings, there is much that is worth reading and of real profit.

The first part contains the chapters on diathermy, ultra-violet rays and static electricity. These have been very well written and are easily the best part of the book. With great detail and homely illustration, the physics and technic of administration of these physical agents have been sufficiently stressed to give valuable help to those who have been using these modalities empirically. To the very beginner, the material is somewhat advanced.

The chapters on galvanic, faradic and sinusoidal electricity are lamentably weak. Massage and hydrotherapy are briefly considered.

The second part contains the clinical application of the modalities described in part one. Diseases to the number of 138, listed alphabetically from acne to whooping cough, are discussed with a sketch of Sampson's conception of the pathology of each disorder and a description of the technic to be used in treatment. The value of the technic advised in the use of the physical agents in the above disorders would be enhanced if less effort were expended in developing a personal pathology for those affections.

Separate chapters are devoted to locomotor ataxia, pyorrhea alveolaris, arthritis and hay fever. The chief value of these chapters lies in presentation of technics for these disorders and gives the physician a starting point in treatment which he can later change or modify, depending on the condition of the patient. The chapter on peripheral nerve wounds is good.

The third part is devoted to management of the mechanical details in a physiotherapy department and includes the laying out of such a department as well as the search for trouble when there is a break down in apparatus.

The chief criticism that can be made about Sampson's book is that it fails to provide the beginner with an understandable explanation of the various physical agents and their application. The use of physical agents in the treatment of disease has made rapid progress since the close of the World War. Sampson himself is responsible for much of this awakening here in the east. The sale of apparatus has gone on at a rapid pace with the buyers for the most part unqualified to use such apparatus. The lack of didactic instruction in the medical schools has left the task to the manufacturers. The emphasis on treatment without a primary understanding of the nature of the physical agent and the apparatus employed to produce it has led to poor results and an undeserved opinion of physiotherapy.

Perhaps the chief value in Sampson's book is the fact that he stresses the value of proper technic based on a fundamental knowledge of the apparatus and a correct understanding of the pathology being treated, physiotherapy forms a valuable adjunct to the accepted forms of medical and surgical treatment.

## Current Events

### ANTIDIPHThERIA CONFERENCE

In response to the following letter, issued under date of March 28, 1927, a conference was held in the Princeton Room of the Stacy-Trent Hotel, Trenton, New Jersey, April 10, at 2 p. m.

"Under authorization of Dr. James S. Green, President of the Medical Society of New Jersey, and in the name of that organization, we are issuing this invitation for a conference of the

representatives of those several official bodies, public health agencies, or medical societies, interested in a state wide campaign for the elimination of diphtheria. At the present moment, much good work is being done in this direction by these groups but there is hope of greater and quicker results through coördination of efforts. It is in consequence of this belief, growing out of communication with members of each group, that the officers of the State Medical Society have decided to take the initiative in calling a conference of two or three representatives each from the State Board of Health, the State Board of Education, the Antituberculosis League, and the Medical Society.

The conference will be held at the Stacy-Trent Hotel, Trenton, Sunday, April 10, at 2 p. m. You are cordially invited to participate.

Very truly yours,

(signed)

Henry O. Reik, M. D.,  
Executive Secretary,  
Medical Society of New Jersey.

The meeting was called to order by Dr. Green, with Dr. Reik acting as Secretary, and the following named representatives were present: Medical Society of New Jersey—Dr. James S. Green, President; Dr. Walt P. Conaway, First Vice-President; Dr. J. Bennett Morrison, Recording Secretary. State Board of Health—Dr. Henry B. Costill, Secretary and Director of Public Health; Mr. David C. Bowen, Bureau of Health Administration. State Board of Education—Mr. Charles J. Strahan, Assistant Commissioner. Antituberculosis League—Mr. Ernest D. Easton, Executive Secretary; and, Dr. Joseph R. Morrow, Member Executive Committee. State Health Officers' Association—Dr. A. S. Fell, President; Dr. Eugene Sullivan, Secretary; and, Mr. F. J. Osborne, Health Officer of East Orange.

Dr. Costill introduced Miss French, Secretary of the Church Mission of Health, whom he had invited to participate in the proceedings and who will be interested in bringing the Church Associations to the support of this movement.

The president called upon Dr. Reik to explain the object of this meeting and the latter stated that he had been moved to lay the matter before the officers of the State Medical Society and to induce them to take the initiative in calling this conference, as the result of observations made while conducting the routine work of his office. He had noted that various agencies in the state were engaged in combating diphtheria and he knew that the State Health Department is desirous of conducting such a campaign as is being waged in the neighboring states of New York and Pennsylvania under the slogan, "No more diphtheria by 1930". He felt that, although the State Health Department and many local health officers are actively engaged in applying the toxin-antitoxin immunization treatment, and individual physicians are, in some parts of the state, actively engaged in this work, and certain school authorities are sympathetic to the movement and helpful in securing the consent of parents to have their children immunized, it might be wise to have these various agencies confer with a view to developing a program in which each element should play a definite and coördinate part. The State Board of Education can possibly aid very materially in securing active support of all the school agencies; the county, city and town health officers can inaugurate local campaigns; the individual physician can stir up interest through the families he treats and can immunize the preschool child; the State

Board of Health can possibly direct the whole campaign and unify these forces in the support of a program so arranged that there shall be no overlapping of effort, no waste through duplication of expenditure, either of money or labor, and thus produce the greatest efficiency and secure the most satisfactory results in the shortest space of time. The Antituberculosis League has expressed a willingness to devote some of its money to publicity work, and might well be given a specific part to play in this program. Dr. Reik hoped that by coordinating all these forces and outlining a definite program in the beginning, we might, in New Jersey, secure even better state-wide results than have our neighbors. He directed attention to the most excellent results obtained sporadically in New York State, as in the specific instances of Syracuse and Auburn, and expressed the belief that in a state so compact as New Jersey, an efficient organization of all our forces could bring about equally good results throughout the state. It was this latter idea that induced the call for this meeting, and the agencies represented were suggested as those to be first consulted; perhaps other organizations might equally well be invited to cooperate, as indicated by Dr. Costill's having suggested inclusion of the Church Welfare Association.

Dr. Green then called upon others to express their views and said that he hoped any plans considered would particularly include devices for reaching the preschool child, as the main obstacle to success in obliterating diphtheria would be found in that field.

Dr. Costill emphasized the importance of Dr. Green's statement and said that if we can reach the preschool child the problem will soon be solved.

Mr. Osborne, President of the Essex County Health Officers' Association, perhaps the only county in the state that has an organization of its health officers, expressed appreciation of the State Medical Society's having taken the initiative in this conference because lay organizations and laymen in the position of health officers look to medical men to take such a lead and hesitate themselves to launch a movement that is essentially medical in character. He reported that an anti-diphtheria campaign has engaged the attention of East Orange for the past 4 years and that 80% of the school population of that city has now been immunized. A year ago he could have reported that for 14 months there had not been a death from diphtheria in that community. Within the past year they have had 1 death and 1 case reported; the latter in an adult.

Mr. Osborne suggested that an official invitation from the State Medical Society, combined with an urgent recommendation from the State Board of Education, be sent to the Superintendents of all the schools in the state; the schools have the power to carry on this work but many of them will await some kind of pressure or encouragement before taking it up, and he believed that such a step as he proposed would be productive of good results. His experience has been that as soon as you immunize the children in the school you secure the interest of the families and can then reach the children of preschool age. One effort to reach the preschool child in East Orange consisted in organizing a good health week, beginning with May day, about a year ago, and advertising through distribution of circulars and newspaper articles that the child welfare clinics would pay special attention to the vaccination and immunization of young children. That effort resulted in the establishment of preschool clinics for this purpose on a permanent basis. He had attempted to get the physicians of that community especially interested

but was not very much encouraged with their reaction and is at a loss to explain why. Perhaps they have been too busy to consider the matter, or perhaps these newer immunizing procedures are more or less outside of the everyday field of thought of the family physician. We have thrown the question at them, saying that it was not the job of the Health Department or the Board of Education, but that as every family probably had at least one visit during the year from the family physician he could make use of his opportunities to encourage this work of protection and prevention. However, the physicians have encouraged continuance of the work but have not been very active in it themselves. About the first of this year, the East Orange Health Board had adopted a new idea, that of sending out attached to every birth certificate a small circular giving statistics regarding the existence and mortality of diphtheria, showing that the greatest mortality percentage is among preschool age children and that prevention of this disease calls for recognition by the parents of their responsibilities toward their own children. This plan has resulted in a large number of requests for the use of toxin-antitoxin.

Mr. Osborne expressed the belief that the agencies taking part in this conference, appealing to other agencies such as women's clubs, Rotary, Kiwanis and Lion clubs, might accomplish a good deal toward the abolition of diphtheria.

*Dr. Green:* May I ask how this work is financed in East Orange? Do you pay the physicians working at the clinics and do you get an appropriation for supplying antitoxin? Further, is the immunization supplied only to indigent families or is it given to everybody?

*Mr. Osborne:* Answering the last question first, it is given to everybody; we found that the physicians generally would rather have it done in the schools and we could not there draw a line between those who could and could not pay. The financing is arranged jointly between the Board of Health and the Board of Education. We conferred with Dr. Zingher, of New York, and engaged him to do the medical work. It was arranged that the printing of cards, circulars and class room records, the clerical work, and the services of a nurse, should be paid for by the Board of Education. The fees to Dr. Zingher, the purchase of toxin-antitoxin, and the services of 2 nurses, were paid for by the Health Department.

*Mr. Bowen:* If we are going to outline a program now, the more information we can get at once, the better, and I will venture to mention a few points that occur to me because of having been engaged in this work to some extent. There are difficulties to be surmounted before we can secure 100% of immunization, especially of the younger children. There are 2 groups we particularly wish to reach because of their high susceptibility, and these are the preschool age and the children of rural districts, both school and preschool, and perhaps I might include the so-called better sections of our large cities because the better the homes from which the children come the more susceptible they are to infectious diseases. The lower classes take everything protective that is offered; the richer class does not, and yet it is the group most in need of this protection. Now, we want publicity, but that is not the greatest thing we need for the people are ready for this thing. I went into a rural district last week containing 11 schools; 95% of those children brought consent to have immunization performed, and, in addition, a large number of preschool age were brought along. The school Superintendents are ready to help us, in fact, they are asking to do so.



They secure the consent of the parents and we go out prepared to do the work. We have covered 60 schools in the past few months and found that from 55 to 95%, in different districts, of the pupils had brought consent to be immunized. Where we have the children in large groups, two men skilled in doing this work can treat from 1000 to 1500 children in the afternoon after closing of the regular school hours. The immunization, 3 doses, with material obtained through the State Department, costs about 20c per child. The physicians doing this work in private practice cannot do it very cheaply. Many poor people want to pay for it but the charges run all the way from \$6.00 to \$21.00 per child. Unless we can cheapen the method, make it a one-shot proposition or arrange for it to be done in groups so that the price may be brought within the range of possibility for people of moderate means, we shall not get the desired result except by immunizing through the health departments. If this is a proper thing to be done by public health officials, there will be no difficulty in putting it over because the average family understands the ravages of diphtheria better than they understand, for instance, small-pox. A great many medical men do not want to bother with this work, possibly because it requires too much of their time, possibly because the pay is too small. We shall want to settle the question as to how this had better be done; whether by the family physicians in their private practice, whether through organized clinics, to be held at stated places and times and doing the work on the group system, or whether it shall be done as a public health measure. May I ask what it costs to have Dr. Zingher do the work in East Orange?

*Mr. Osborne:* East Orange is probably an extravagant city. Most cities and towns would have no right to employ Dr. Zingher at such a price. His fee to us was \$100 per day, and on the first test he put through 4600 children; he administered the first dose of toxin-antitoxin, and the local physicians gave the next 2 doses, they being paid at a rate of \$10 per hour. Dr. Zingher performed only the initial test and the retests made the following year. The first time we had him on 3 days for each of the 2 weeks so that his fee was \$600 and the work of the local physicians cost about \$400; in other words, \$1000 covered the cost of 4600 children so that the per capita rate was not large. At the present time, it is only, of course, the entering child and those for retesting that have to be considered and this requires only about 2 days in the year for employment of Dr. Zingher.

*Dr. Green:* Did you have any difficulty in applying this work to the private schools? Is that not the hardest group to reach?

*Mr. Osborne:* Yes, they were, I think, however, they have learned their lesson in our community because diphtheria developed in 2 or 3 private schools that had not been immunized and in one of them a death resulted. They are now asking us to help them. The number of children in private schools is, however, small and generally their parents can afford to pay the private physician for protecting them and we did not seek to invade that territory; in fact, we doubted whether it would be right for us to do so.

*Mr. Easton:* The Antituberculosis League is essentially an educational body and we desire to promote any project that leads toward better health of the community. Our attention has been directed to the antidiphtheria campaign in New York and we thought that perhaps we could aid in this work in New Jersey without spending a great deal of money, for we haven't a large sum, and that we might do some part of the work that

does not fall within the province of the other organizations represented here. Dr. Craster, Health Commissioner of Newark, wrote us a letter asking if we might not do something to reach that 40% of children that refused to come under care of the health authorities of his city; he referred to 40% of school children plus those in the parochial schools. Dr. Craster thought that we might, through educational propaganda, reach the families, particularly the fathers of families, with an explanation of the desirability of having these preventive measures taken; that we might institute a course of lectures, and might through parent-teacher associations reach the group of children of preschool age. There are several suggestions as to how we might help if this is to be made a state-wide proposition.

Here is a little card prepared in New York, called, "Protect Your Child", which picture ought to be effective; the physician could hang this in his office to attract the attention of his visitors. Secondly, we could make use of bill-board advertising, showing that toxin-antitoxin protects babies and children, and advise a visit to the family physician. There would be no mention of the League in this advertising; it would be plain propaganda. Posters could be exhibited all over the state at very little expense, and I have here several different samples of that kind of literature; one that has been used in Newark is, "One in 16—Why the 16th?". If this thing calls for education of the public, we may be of some service to the cause. If it only requires the enlistment of physicians and health officers, we may not be able to assist very much.

The use of moving pictures may be helpful, and I may suggest that an excellent one is offered by the John Hancock Life Insurance Company. We can induce the moving picture houses to show some of these films.

The advantages of having an organization program are to work together and put this across within the shortest possible time. We might, for instance, determine upon a "diphtheria month" and by concentrating our efforts for that particular time, see what can be accomplished.

*Dr. Morrison:* I think we all realize that we are attacking a large problem. The medical profession has sometimes been criticised upon the charge that it is a medical trust, and it occurs to me that any large proposition of this kind inaugurated by the State Medical Society may be looked upon in some quarters with distrust. There is no question in our minds but that the physicians of the state will get back of this movement, no matter where it starts. Now, the question is: what is the best time, and what are the best methods of procedure to make this movement a success? I am taking part just now in a campaign to raise \$1,000,000 for hospital construction, and I have been impressed by the systematic manner in which the promoters of that campaign are proceeding, the amount of time they have given to formation of an organization before putting the project forth to the public. Beginning with the formation of a small group of 10, they extended this to 20, to 80, and now to 800, consecutively educated regarding the method of approach to the public. Now, if we are going into this proposition with the hope of state-wide success, it should be on some such plan as that. We shall need the coöperation of all the organizations in the state that may be interested in promoting this campaign.

One of the best avenues of approach, if we would immunize the children, is through the mothers; the mother, that lioness who protects

her cub, is the first one to reach through education and propaganda, and we need a systematic organization to reach all the mothers in the state. The Medical Society of the state will help to the fullest extent; we engaged Dr. Reik 2 years ago to develop this kind of work and we shall probably ask him to devote his entire educational efforts during the next year to this antidiphtheria campaign. The medical profession can be depended upon to take part in the work, but we need the aid of such bodies as the parent-teacher associations, the church organizations, such as Miss French represents, and even the various labor organizations—every group of men or women that can be brought into this should be represented in an organization to carry on the work. I believe that out of this nucleus of representatives here today, we should develop a larger organization embracing all the elements interested in child welfare and the abolition of disease.

*Miss French:* Unfortunately another engagement compels me to leave this meeting shortly and before going I should like to say that I am very much interested in what you are planning to do and will carry the news back to our organization. In addition to the religious organizations, I feel quite sure that the social workers group will be very glad to coöperate in every way. As our workers come in contact with various clinics, we can help push the educational program. We observe that only too often the parents of children do not understand what the Schick test is all about; they accept it because the Board of Health or Board of Education requires its application but many would more willingly follow advice if they had a better understanding of the situation.

*Mr. Strahan:* Speaking for the Board of Education, because Dr. Logan could not be here today, may I say that we will be very glad to participate with you in the development of this program. We have in the past been helped wonderfully by the State Board of Health in developing healthier conditions among the school children. In the matter of vaccination, we have given such assistance as we could to the Board of Health. Our laws provide now that boards of education *may* require vaccination and the Board has construed that privilege so liberally as at times to exclude unvaccinated children from the schools. We have discussed the enforcement of the law with legal authorities of the state and they have upheld our action in this respect, though it has sometimes seriously interfered with the educational procedures.

It seems to me that this antidiphtheria campaign should be instituted by the Health Department and supported by the State Medical Society; the latter cannot be criticised for doing that. In our school paper, with a circulation of more than 4000 in the state, for it goes to every school in the state, if we could have some endorsement from the Medical Society for the articles to be published, they would have more weight. The parent-teacher association is endorsing this project of having children physically fit before being entered into the schools. It may take a lot of educational work to bring this about but I can say for our Board that we thoroughly appreciate the invitation to join in this conference and are willing to coöperate in every way.

*Dr. Morrow:* There seems no question but that we are all agreed upon the principles involved in this project. I believe that the public is looking for some action now and I think that the voice of authority coming from the State Medical Society will have good influence upon individual physicians and induce them to become more active. The

county medical societies will act upon any recommendations from the State Society and if some definite program for the development of clinics or the personal use of toxin-antitoxin among their patients is presented, I believe it will receive favorable consideration.

I am connected with a public institution but I am also a physician and continue to think of the interests of the family physician. In some instances the institution can be helpful, perhaps, to the physician practicing in that neighborhood. One thing that I am doing is that whenever a child is entered at our institution, its parents are supplied with a questionnaire regarding the condition of other children in the family and our experience has been that none of them refuse to have the other children protected, so that in that way we reach a good many children. Recently, one of our school physicians came to me saying that inasmuch as you have the facilities for this work, would you mind helping me out. I agreed, and we were able to immunize a good many children by having them brought to the institution.

*Dr. Sullivan:* I am quite in accord with all that Mr. Osborne had to say. I recently had a conference with some school authorities who requested the immunization of the school children in that district. The question came up as to who would pay for it—and in my town that had been the main trouble—whether the Board of Education or the Board of Health should stand the expense. We finally agreed to settle on a 50-50 basis. There is a good deal of trouble in the smaller towns on that point because the health appropriation is usually too small in such localities, and while the Board of Education does not secure any too much money, we think they should bear a part of this expense.

*Dr. Conaway:* It seems to me this question is largely a matter of education and of forming an organization to disseminate such knowledge, so I heartily approve of the suggestion made by Dr. Morrison that we try to effect a more thorough organization in the beginning. When such organization is perfected, it will form a strong backing for the Health Department to inaugurate the clean-up campaign.

*Dr. Fell:* I thoroughly coincide with what has been said by the previous speakers and am certain that the Health Officers' Association will gladly help in this good work. The medical men in my city have not been at all antagonistic but they probably hesitated to become very active for fear of criticism on the score of possible financial interests. Not much has been done in public schools of Trenton because of a peculiar situation that arose. The work was started, then stopped, and now we hope for a renewal of activity. This was largely due to the unfortunate death of Dr. Neisser and the fact that his successor has not yet been appointed.

One of our problems had to do with the fact that there are 15 parochial schools here with a population of 9000 children. Unfortunately, we could not get the bishop to endorse our plans for vaccination and immunization; he said that he would back it if we secured a law making it obligatory. He did not, however, object to our going into the schools wherever we could secure permission of the priest in charge and on that basis we have completed the work in 12 of the 15 schools; only 1 refused permission and the other 2 schools will be taken care of in the near future. While doing this work with the school children, we have had a number of requests from parents to look after their children of preschool age and we have



agreed to do so. At the commencement of the next school year, we will retest all of these children and look after those entering the schools at that time. When the parents find that nothing happens to the school children immunized, they are very willing, even anxious, to have us take care of the preschool child.

*Dr. Green:* As everyone has now expressed his views upon this general question, I feel that it would be wise to take some concrete action and would suggest that a committee might be appointed to further an organization along the lines suggested by Dr. Morrison.

After some discussion as to how this should be done, participated in by Drs. Morrison, Costill and Reik, and Messrs. Osborne, Bowen and Strahan, Dr. Morrison moved that the President appoint a committee representing the several groups present at this meeting, whose chairman shall not be a medical man, to take whatever steps might be necessary to form a state-wide organization for the development of an antidiphtheria campaign.

This motion was duly seconded and adopted, and the presiding officer appointed the following committee: Mr. F. J. Osborne, Chairman; Dr. Henry B. Costill, Dr. John Logan, Mr. Ernest Easton and Dr. J. Bennett Morrison.

Dr. Morrison offered the further suggestion that Dr. Costill prepare a message for presentation to the House of Delegates of the Medical Society of New Jersey when they meet in June, setting forth the plans for this campaign and meeting any objection that might arise on the score of tendency toward the establishment of state medicine.

The meeting then adjourned.

HENRY O. REIK, M.D.,  
Secretary.

## Woman's Auxiliary

### NEW COUNTY AUXILIARIES

During the month of May, 2 additional auxiliaries have been organized; this bringing the total number of county society auxiliaries up to 14, and leaving us still with the hope that at least one more county may be brought into the fold before June 9, when organization of an auxiliary to the state society is scheduled to take place.

In response to an invitation, issued under the authorization of the Bergen County Medical Society, the wives of the members of that organization met at the Holy Name Hospital, Teaneck, New Jersey, Tuesday, May 10, 1927, at 4 p. m., for the purpose of organizing a woman's auxiliary to the Bergen County Medical Society. Dr. Frank C. McCormack, of Englewood, Chairman of the Special Committee on Organization, opened the meeting with a short address and introduced Dr. Henry O. Reik, Executive Secretary of the Medical Society of New Jersey, who proceeded to explain the wishes of the organized medical profession that woman's auxiliaries should be organized throughout the country, and to report upon the progress of such organization efforts in New Jersey. Upon the conclusion of Dr. Reik's talk, the ladies assembled, 22 in number, voted unanimously to proceed with the formation of an auxiliary and also unanimously adopted the constitution and by-laws submitted by Dr. Reik.

Proceeding to the election of officers, after a spirited and interesting contest, the following results were announced: President, Mrs. Edward

W. Clarke, West Englewood; First Vice-President, Mrs. Frank C. McCormack, Englewood; Second Vice-President, Mrs. Valentine Ruch, of Englewood; Secretary, Mrs. Charles Littwin, of Edgewater; Treasurer, Mrs. W. S. Kilts, of Bogota. Delegates to the State Auxiliary: The President and two Vice-Presidents.

A resolution was then unanimously adopted that whereas many of the ladies invited to this meeting had been unable to attend on so short a notice, the wives of all members of the Bergen County Medical Society will be considered as charter members of this woman's auxiliary.

It was decided that the next meeting of the auxiliary shall be held at the Hackensack Hospital, at 3:30 p. m., on June 14, 1927, and that consideration shall then be given to fixing a definite time and place for regular meetings in the future.

Pursuant to an invitation, issued by the Hudson County Medical Society, the following named relatives of the members of that society met in the Nurses Home at the Jersey City Hospital, at 3 p. m., Wednesday, May 11, for the purpose of organizing a woman's auxiliary to the Hudson County Medical Society: Mrs. Joseph Bender, Mrs. J. Searle McDede, Mrs. William Freile, Mrs. Norman L. Rowe, Mrs. Joseph Ruvane, Mrs. Daniel S. Winter, Mrs. A. C. Ruoff, Mrs. H. J. Perlberg, Mrs. L. J. Ferenczi, Mrs. M. Facciolo, Mrs. R. L. Ballinger, Mrs. A. V. Piskorski, Mrs. Thomas Higgins, Mrs. Louis L. Perkel, Mrs. Charles Sirken, Mrs. James Murphy.

Dr. Freile, retiring president of the Hudson County Medical Society, opened the meeting and introduced Dr. Reik to present for the State Medical Society the reasons for organizing an auxiliary to the medical profession.

Upon the conclusion of Dr. Reik's address, the assemblage voted unanimously to proceed with organization and to adopt the constitution and by-laws as submitted.

Under the head of election of officers, Mrs. William Freile was unanimously elected to the presidency and Mrs. Daniel S. Winter to the secretaryship. It was then decided that in view of the small attendance, the election of other officers should be deferred until the next meeting of the auxiliary, which is to be held at the call of the president.

A resolution was adopted declaring that the wives of all members of the Hudson County Medical Society shall be considered as elected charter members of the auxiliary.

In view of the approaching organization meeting of the State Auxiliary, the following three representatives were chosen as delegates to that convention: Mrs. Freile, Mrs. Perlberg and Mrs. Piskorski.

The Woman's Auxiliary to the American Medical Association held a very interesting meeting at Washington, D. C., May 17, 18 and 19, coincident with the Annual Convention of the Association, and our delegates will doubtless present a report thereof at our coming state gathering. At the final session of the House of Delegates of the A. M. A., Mrs. John O. McReynolds, of Dallas, Texas, President of the National Auxiliary, in response to an invitation, addressed the House upon the progress of this new movement. Immediately thereafter the House adopted a resolution calling upon the Board of Trustees to appoint a special committee to serve as a liaison between the Association and the Auxiliary.

## County Society Reports

### ATLANTIC COUNTY

#### Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary

The May meeting of the Atlantic City Hospital Staff was held in the Nurse's Auditorium on May 20, the meeting being called to order by Dr. William J. C. Carrington, president.

Dr. R. A. Matheson, Resident Physician, reported the following case of "Chronic Lymphatic Leukemia" in a female, 45 years of age, received in the out-patient department in a semi-conscious state. At the time of admission there was no information obtainable referable to history. The salient features on physical examination were: Cheyne-Stokes respiration, bleeding gums, marked glandular enlargement of the posterior and anterior cervical, supraclavicular, axillary, inguinal, and epitrochlear chains; numerous fine râles heard at base of both lungs; heart sounds distant, and a soft systolic murmur audible; spleen enlarged and distinctly palpable. Two days later a meagre history was obtained from her husband, the out-standing features of which were that a similar condition occurred about a year ago and the patient was treated at another institution. This present illness had its inception 5 weeks prior to admission, starting with a feeling of general lassitude and marked constitutional weakness with slight bleeding from mouth. The striking feature of the blood examination was revealed in the leukocyte count: 160,000 leukocytes with 85% small lymphocytes. The urine and blood chemistry were devoid of positive findings. On May 9, leukocytes were 200,000, 87% small lymphocytes; May 10, 230,000 small leukocytes, 89% small lymphocytes. The patient died on May 11, three days following admission. The autopsy findings were marked enlargement of the mesenteric lymph nodes, with the spleen twice its normal size and extremely fibrous on incision. Sections of the mesenteric and other regional lymphnodes eliminated the question of Hodgkin's disease. Smear made from the gums disclosed large numbers of fusiform bacilli and spirilla of Vincent, causative factors in producing the spongy and bleeding condition in the mouth.

Dr. J. C. Brown, Chief of the Obstetric Clinic, reported a case of "Carcinoma of the Cervix" in a female aged 58, who was admitted to the hospital under the gynecologic service of Dr. Carrington. The predominant symptom complained of referable to her genito-urinary tract was that of bleeding for a period of 6 weeks, and upon physical examination an ulcerating cauliflower growth was seen which occupied the cervical canal and extended to within 0.5 cm. of the outer margin. The growth was friable and bled quite easily. Further physical findings were marked hypertrophy of the heart, systolic blood pressure 180, a trace of albumen in the urine with the presence of granular casts; phenolsulphonphthalein test showed an output of 32% in 2 hours. It was decided to institute a course of radium treatment because the patient was a poor surgical risk. Needles were placed radially in the carcinomatous tissue, 5 applicators in number and left in place for 24 hours, the total dosage being 1200 mgm. The first application was on February 5, 1927, and removed the fol-

lowing day. She was out of bed on February 8, and was discharged next day able to attend to her work in a normal fashion. The follow-up observations by Dr. Brown consumed a period of time up to the present date; 15 days following her discharge there had been no bleeding since the application of the radium. One week later the cervix showed radical scars and some contraction; os somewhat reddened, slight mucous discharge, marked improvement. Three months following her admission to hospital the cervix was pale and anemic, there was a small nodule posterior to the cervix; cervix freely movable, patient feeling in very excellent health.

Dr. Brown, in his discussion, pointed out the vast importance of considering the economic phase in treating a condition of this type when it is amenable to the radium treatment. This patient was able to return to her duties as part provider for her family, approximately 1 week after admission to the hospital.

Dr. Norman J. Quinn, part time Chief of the Obstetric Service, presented impressions gleaned during a very recent tour of the foreign obstetric clinics in the principle cities of Germany, Austria-Hungary and Ireland, the last being at the Rotunda Hospital in Dublin. He was impressed with their method of post-graduate study in which a minimum amount of didactic teaching was used. The follow-up work was inaugurated in the out-patient department of these clinics and carefully and systematically traced to the operating room or to the autopsy table. The chiefs of the departments of obstetrics and gynecology were at all times present in the out-patient department during the entire course of clinical work. Dr. Quinn outlined in brief, the origin of the American Medical Association of Vienna, established by American physicians in 1903. This organization has grown until at the present time the membership numbers over 4000, more than 1000 having joined within the past 2 years. Its latest achievement, in 1927, is adoption of an official organ captioned *Ars Medici* which is published monthly in Vienna and gives reviews of all branches of foreign medical literature, especially Viennese and German. This journal is dedicated to keeping English speaking physicians informed regarding European medical discoveries and teachings; in addition, it also gives news of the American Medical Association and its activities, and by its growing circulation in the profession will undoubtedly cement a closer bond and wider exchange of ideas with the Vienna investigators, whose research and experiments in many fields have brought them world recognition. This publication is printed in English. Dr. Quinn stated that all physicians going to Vienna are invited to become members of the Association, the fee being only nominal, and by so doing they will be furnished with all the necessary information for orientation in Vienna, allowed access to the Association's reading room and reference library, and given all the opportunities for social intercourse and scientific discussions with other members. Dr. Quinn dwelt upon the *Allgemeines Krankenhaus* which is the largest hospital in the Austro-German empire, having a capacity of 7000 beds, and in which every charity case admitted to this institution is subject to necropsy. These autopsies are complete in every detail and in many cases serial sections numbering several hundred of a specific organ are made for microscopic study. He felt that the follow-up system is complete in every detail and each individual



case that has a fatal termination undergoes a complete analysis as to causation of death. Individual instruction is obtainable at a very nominal cost from heads of departments. It is now possible in Vienna, Budapest and Berlin to obtain a course in any subject relative to medicine or surgery, in the English language; courses vary in length of time and emphasis is placed upon the attitude of the course to turn out better physicians and not specialists. The teachers connected with the hospital receive small compensation.

In speaking of the Rotunda Hospital situated in Dublin, Dr. Quinn stated that 5000 women are delivered yearly, 3000 within the hospital and 2000 in the out-patient department. The student body comprise men from England, Ireland and Scotland. Due to the stress of financial conditions there is a scarcity of equipment and instruments. Dr. Quinn outlined in a very interesting manner the routine followed in this institution, and described the equipment of the various departments and wards. In spite of the lack of adequate equipment, excellent work is being performed at the Rotunda Hospital and enthusiastic coöperation is maintained throughout the institution. In Vienna, the government is at all times both eager and willing to foster any phase of research work which a physician might be willing to attempt; motion pictures and clinical demonstrations of medical subjects may be seen at all times. Dr. Quinn in closing urged the adoption of a plan by the Atlantic County Medical Society similar to that of the New York State and Michigan Societies which are promulgating a post-graduate form of study like that obtainable in institutions abroad.

Dr. B. B. Filer, Chief of the Dental Division of the Atlantic City Hospital, outlined the activities of his department for the fiscal year. He urged greater coöperation between the medical men and the dental surgeon and expressed his willingness, at all times, to respond to consultations when requested.

Dr. Joseph H. Marcus, of the Pediatric Department, demonstrated a motion picture of "Sun-Babies," which picturization visualizes the use of direct sunshine in preventing and curing rickets. This motion picture film was made by the Children's Bureau of the United States Department of Health, in collaboration with the Rickets Clinic of the Yale School of Medicine. The chief points to be emphasized to the layman were the early administration of cod liver oil, and the use of sunshine in the tenement districts as well as in the country. The picture very cleverly demonstrated the use of a fire escape or window arranged so that the baby might receive a sun bath in this place. This picture was primarily intended for observation by the laymen, but contains many points of interest for the physician in the causation and cure of rickets.

Following the meeting of the general staff the major staff held its meeting, during which several applications for staff appointments were read and arrangements made for the annual outing to be held in June.

### BERGEN COUNTY

Spencer T. Snedecor, M. D., Reporter.

On the evening of May 10 about 50 of the Bergen County physicians met at the Hackensack Hospital. Dr. Frank McCormack reported that a Woman's Auxiliary to the Bergen County Society had been formed that afternoon. The

organization meeting was held at the Holy Name Hospital, with 22 ladies present. Mrs. E. W. Clarke was elected President. In addition, 2 vice-presidents and delegates to the Annual Convention were chosen. A fine spirit of enthusiasm on the part of the ladies present was apparent. It is anticipated that the organization of this auxiliary will stimulate the interests of members in attending the society meetings and particularly the Annual State Society Meeting at Atlantic City.

Dr. David Corn, for the nominating committee, reported the names of Dr. George Finke, R. Gilady and F. C. McCormack as annual delegates to the state society. They were duly elected. A communication from the County Tuberculosis Society asking for approval of the film entitled "New Ways for Old" was read. This film was prepared by the Metropolitan Life Insurance Company for the anti-diphtheria campaign, and is to be shown to all types of lay organizations. The society unanimously approved.

Several applications for membership in the society were read and ordered filed, to be considered at the next session.

The meeting was then turned over to Dr. Henry O. Reik, Editor of the Journal of the New Jersey State Medical Society. Dr. Reik's particular topic was periodic health examinations, but he began, as he said, by giving an account of his stewardship of the work in the state society. The State Journal has doubled in size within the last 2 years. Many new departments have been added in order to have it contain something of interest to every physician, even though he does not peruse the whole magazine. Whereas 2 years ago there were scarcely sufficient original articles to publish, now there is a waiting list, and the editor may carefully consider the material on its merits. Particularly have the reports from the County Societies improved. Each issue contains a discussion of the work being accomplished monthly in nearly every one of them.

Graduate Medical Education has taken root and undoubtedly will spread out upon a much wider scale. Dr. Reik commended the beginning that has been made in Bergen County.

The Welfare Committee during the past year has been active in the legislature although the medical profession did not sponsor any bills of its own. The naturopath's bill, granting them a license to practice medicine, was killed in the senate, as was also the beauty parlor bill, which would have enabled beauty parlor specialists to perform all manner of minor operations. The rabies act sponsored by the department of health, failed to pass.

Among the special features sponsored by the state medical society was the Primer on Medical Education which was broadcast throughout the state. The tristate conferences, inaugurated by the New Jersey Society to bring the executive officers of the Pennsylvania, New York and New Jersey Societies into frequent meetings, have proved very successful. Recently a special convention was called by the state society of all the organizations that would be interested in the campaign to eradicate diphtheria under the slogan, "No More Diphtheria After 1930".

The meeting of the state society at Atlantic City this year promises to be larger than ever and will be featured by a discussion of timely topics. An innovation will be the projection of moving pictures of different phases of medical work in a side room for those who are not in-

terested in special papers that are being given; also clinics in all branches of medicine will be held in the Atlantic City Hospital on Saturday morning. A recent question has arisen as to the status of the permanent delegates. Legal advice shows the need of a revision of the county regulations and by-laws of the society. The original charter does not in any way provide for permanent delegates.

Periodic health examinations are being widely advertised to the public. This work was originally started by the Life Extension Institute but it truly belongs to the family physicians who have been unduly slow in accepting it. It has presented a new problem which many physicians have neither been willing nor ready to meet. Some have considered it in a half-hearted way but the public is at present better educated to the required standards than the doctors. The public can't be bluffed and requires complete and careful examinations. For such an examination doctors are entitled to a fee of \$10 to \$50. It is up to the family physician to take up this work if he wishes. Those who do will find that it pays well. Furthermore, it is the duty of the medical profession to reclaim this work from commercial organizations and from the quacks who are quickly springing up to take advantage of it, as for example the "House of Health" in New York. A set of cards and blank letters have been made up by the State Medical Society to be distributed among the physicians who desire them, at a nominal sum. These blanks will enable the physicians to follow a routine, thorough examination.

Dr. Reik concluded his talk with moving pictures showing how a thorough examination may be made. From the number of requests he received for the blanks sent out by the state society it was apparent that his talk had done a good deal to bring periodic health examinations to the front in the minds of Bergen County physicians.

#### Hackensack Hospital

Spencer T. Snedecor, M. D., Reporter.

The Associated Physicians, comprising all of the members of the visiting staff and courtesy staffs of the hospital, met April 25 for the scientific discussion of the month.

Dr. David Goldberg described a case of gangrenous cholecystitis. A woman, 54 years of age, with history of several previous attacks of gall stone colic, was first seen complaining of severe right upper quadrant pain. Palliative measures were ineffective; the condition became aggravated, with increasing temperature and leukocyte count. Two spells of cardiac syncope were noted. Patient was admitted to hospital and examined by Dr. E. K. Conrad, who advised operation for a gangrenous gall-bladder. Operation confirmed the diagnosis. Spinal anesthesia was used. Toward the end of the operation the blood pressure began to fall; the patient went into shock and died a few hours later.

The discussion sought to bring out whether operation was advisable; what factor the spinal anesthesia played; could the weak heart have been bolstered up more before operation?

Dr. Parker A. Groff reported a case of scientific note. A woman, 28, succumbed to lobar pneumonia, right lower. She failed to have a crisis; temperature continued unabated and fluid was suspected. Two days later aspiration was performed and a quantity of thin black, foul

fluid was obtained. It was evident that the lung had necrosed. Autopsy specimen showed the whole lower right lung to be gangrenous.

A case of gangrene of the colon was described by Dr. Howard A. Cooper. The patient, a man of 32, entered the hospital for removal of hemorrhoids. At operation a pocket of pus was entered, seeming to come from somewhere around the prostate. The man continued to complain of rectal distress and ran a low grade septic temperature. Sphincter remained involuntary. Rectum and sigmoid were explored several times without finding a focus of pus, although a continual slimy discharge was emitted. The man wasted from low grade sepsis and finally died. At autopsy it was found that the entire colon up to the hepatic flexure was gangrenous. The probability is that an ascending thrombosis had followed all around. No abdominal signs at any time suggested such a condition.

Dr. H. L. Mosher lost a case of eclampsia which he reviewed. He was called in to treat the woman after her first convulsion, 7 months pregnant. She was rushed to the hospital and the conservative method was followed: morphin in large quantities, phlebotomy, glucose intravenously. Kidney function was almost nil. The woman had successive convulsions and died. Among the many questions brought up was the advisability of using magnesium sulphate intravenously, or the radical methods of delivering the fetus.

Dr. C. A. King read a short paper on "The Significance of Hematuria". The doctor stressed the importance of this sign as an indication of severe trouble in the urinary tract. The difference between initial hematuria from the bladder and terminal bleeding from the kidney was brought out. Hematuria should lead one to make a careful examination of the genito-urinary tract, including x-rays and cystoscopy.

A special meeting of the Associated Physicians was held May 6, to receive the report of conferences with insurance companies over compensation work and an industrial clinic. The committee reported that the insurance companies did not feel that the conduct of industrial cases had been satisfactory in the past, but were willing to meet any suggestions of the physicians toward a satisfactory arrangement.

The staff voted unanimously that an industrial clinic be established in connection with the Hackensack Hospital.

A committee, consisting of Drs. George W. Finke, Donald A. Curtis and Spencer T. Snedecor, was elected to organize the clinic and coöperate with the insurance companies.

#### CAMDEN COUNTY

Grafton E. Day, M. D., Reporter.

A meeting of Camden County Medical Society was held April 12, at the Dispensary, with Dr. Alfred Cramer, President, in the chair.

Dr. Henry Reik was introduced and spoke on the work of the State Welfare Society. He announced the defeat of the bills offered by the naturopaths and cosmetologists in the Senate, after these bills passed the House. He also announced that 12 counties had organized units of the Woman's Auxiliary and discussed the coming state meeting. Dr. Reik proceeded with his lecture on Periodic Health Examinations, showing illustrative moving pictures.

Dr. Howard Curtis read a paper on "Relation-



ship of Types of Human Constitution to Disease".

Dr. Willard Mingle was elected to active membership, being transferred from Schuylkill County, Pennsylvania. The name of Dr. Riddle, at his request, was dropped from the roll. Flowers were sent to two sick members, Dr. W. A. Westcott and Dr. Edgar B. Clement.

The Constitution of the Woman's Auxiliary submitted to the Society was unanimously approved.

### May Meeting

The regular monthly meeting of Camden County Medical Society was held at the Camden City Dispensary Building, May 10, with Dr. T. W. Madden, Vice-President, in the chair. Minutes of former meeting were read and approved. Dr. Roberts reported for the Business Committee on improvements made to the building.

Dr. David N. Rappaport presented a certificate of membership in the Atlantic County Medical Society, asking for transfer to Camden County Medical Society.

The Scientific Program was then presented with Dr. C. A. Patten reading a paper on "Encephalitis".

Motion was made to dispense with the June meeting of the local society owing to the meeting of the State Medical Society on June 9 to 11.

### HUDSON COUNTY

M. I. Marshak, M. D., Reporter.

The Hudson County Medical Society met at the Jersey City Hospital, May 3, Dr. W. Freile presiding.

Dr. Freile announced that the special committee to study the abuse of hospitalization and clinics by nonindigent patients consisted of Drs. W. J. Sweeney, Louis Franklin, M. A. Swiney, W. N. Barbarito and H. Alexander.

A motion was made and passed that the society send a letter of condolence to Dr. S. R. Woodruff on the loss of his mother and father, both of whom died during the past month. The matter was referred to the necrology committee for action.

The following resolution was discussed: "Resolved that the annual reports of the Board of Trustees, the Welfare Committee and such other committee reports as the House of Delegates or the Board of Trustees may order, shall be published in the Journal of the State Society, at least one month before the annual meeting." The Delegates of the society were instructed to endeavor to secure the passage of this resolution at the annual meeting of the State Society in June.

Dr. G. K. Dickinson made a motion, which was regularly passed, that the delegates use their best efforts to secure the election of Dr. B. S. Pollak to the House of Delegates of the A. M. A.

A motion was passed that the names of the endorsers, as well as that of the applicant for membership, be published in the Bulletin.

Dr. B. S. Pollak reported that at the last meeting of the Board of Trustees of the State Society, an opinion was read that Permanent Delegates are not legal according to the provisions in the charter of the State Society. This created quite a discussion as to the status of our delegates to the State Society. On motion, regularly made and passed, all permanent delegates were elected as alternate annual delegates, and they were instructed to oppose any changes in

procedure of the State Society but to advocate that the charter be changed to agree with the constitution of the State Society.

The officers as named by the Nominating Committee (previously published) were elected with these exceptions: Dr. C. B. Kelley, Treasurer, instead of Dr. D. Miner; Dr. F. Bortone as Permanent Delegate, and Dr. G. Echas as Annual Delegate.

Dr. Henry H. Ritter, Associate Professor of Surgery at the New York Post Graduate Hospital, spoke on "The Treatment of Certain Ambulatory Traumatisms".

He discussed burns as being infected wounds due to heat. The first stage is one of acute inflammation, or dermatitis, lasting 24-48 hours. Treatment consists of wet dressings of sod. bicarb. solution, and in large burns, glucose solution by drip or intravenous injection and forcing fluids. The second stage is one of secretion of serum or pus, lasting about 72 hours. Exposure to warm air and sunlight, 15 minutes every 2 hours, at night using a dressing of camphorated oil in olive oil, 1:5, is the indicated treatment. It may be necessary to use narcotics. Granulation and healing constitute the third stage, in which treatment consists of air, light and stimulation by scarlet red, 1 gm. to the oz. of olive oil, and various types of grafts when necessary. "Do not open blebs until after 3 days." One must beware of acidosis and prevent contractures by posture.

Hand infections were then taken up. They were divided into superficial (as paronychia) and deep (as felon, tenosynovitis, fascial space infections, etc.)

Treatment was first, preventive by producing clean wounds with iodine, using rubber for drainage, rarely suturing, by splinting and elevating the parts. Curative treatment consists of cutting the sutures early, soaking in hot water and the use of wet dressings of Tr. Iodin, 1:150, in saline solution. Later, incision may be necessary. These must be made deep and long, following the natural markings of the hand and never if possible, to permit cross cutting. It is rarely necessary to incise the dorsum of the hand.

Incisions must never be made in cases of cellulitis, lymphangitis, swelling, edema or stasis. They should be used only where fluctuation is present or to remove a foreign body. Drainage should be made with rubber bands, tubing or tissue. The dressing should be gauze soaked in iodine saline solution, and the parts should be splinted. The drain should be removed early, fingers should be kept moving and deformity prevented by postural splinting. General anesthesia should be used, rarely local. Dr. Pollak also discussed the management of infected wounds along the same train of thought as the foregoing. He advocated the use of aspiration in synovitis of the knee joint, and showed a modified Thomas splint, made of wire, for fractures of the bones of the fingers, extension being made by passing a stout thread through the finger nail and tying it to the distal end of the splint.

### MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society held its regular meeting in the Carteret Club, May 11, 1927, with President Sill in the chair. Reading of minutes was dispensed with, and Dr. Barton Cook Hirst, of the University of Pennsylvania, was introduced.

Dr. Hirst took for his subject, "Some Modern Methods of Diagnosis and Treatment in Obstetric Conditions". Cesarean section was discussed in detail, particular emphasis being laid upon the low transverse incision. Attention was called to the sedimentation sign: in ectopic gestation no abnormal red cell count appears, while in salpingitis a rapid red cell increase is demonstrated. There is also an intermittent leukocytosis. Non-specified proteid treatment—in peritonitis, in pregnancy, puerperium and with exudate—was described.

Dr. Hirst answered many questions that were brought out by the interesting discussion that this progressive address elicited.

Following the enthusiastic demonstration that Dr. Hirst aroused, the President announced that one of the old pupils of Dr. Hirst wished to make a few remarks.

Dr. G. N. J. Sommer was given the privilege of the floor, and in the prelude to his remarks, referred to several interesting anecdotes relative to his association with Dr. Hirst while a student in the University of Pennsylvania. After expressing the sincere appreciation of the Society in being so highly honored by the presence of one who had been instrumental in many investigations in the science of obstetrics and gynecology, which had developed methods of relief, Dr. Sommer presented, on behalf of the University men, to Dr. Hirst, 12 dinner plates of Lenox ware, of a design conceived by a Trenton man and manufactured by a Trenton concern. Dr. Hirst accepted the testimonial with a glowing tribute to the ability of Trenton physicians.

It was moved and carried that the next meeting of the Society should be held in Princeton, June 22, in the Graduate School of the University.

About 60 members remained for refreshments, during which time Dr. Hirst renewed many old acquaintances.

### MONMOUTH COUNTY

F. J. Altschul, M.D., Reporter

The regular monthly meeting of the Monmouth County Medical Society was held at the Garfield-Grant Hotel, Long Branch, on the evening of April 28, 1927. After a brief business meeting, a symposium was presented on the subject of peptic ulcer.

Dr. C. A. Pons, Pathologist to the Monmouth Memorial Hospital, read a paper on the pathogenesis and pathologic aspects of ulcer. Dr. W. S. Tilton presented the roentgenologic side, and he was followed by Dr. F. J. Altschul who discussed ulcer from the clinical point of view, and also outlined the main points in medical management.

Dr. H. B. Slocum, Chief Surgeon at the Monmouth Hospital, read a paper on "Surgery of Gastric and Duodenal Ulcer"; advocating subtotal gastrectomy as the type of operation giving the best results in cases of long standing chronic ulcer.

Due to lateness of the hour, the discussions were not as extensive as the subject merited.

About 30 members were present. A buffet supper was served, after which the meeting adjourned.

On the same night, a meeting of the Ladies' Auxiliary Society was held, Mrs. W. G. Herrman presiding. Although the Ladies' Auxiliary of the Monmouth County Medical Society is only a month old, the attendance was good.

### DO YOU READ THE MEDICAL JOURNALS?

There are a certain percentage of medical graduates who feel that their medical education is complete when they have received their diplomas from the medical college. These medical practitioners have in most instances, at least for a considerable period of time, only a small number of cases of any particular kind and they feel that their financial condition will not permit them to attend many clinics away from home. The loss of time from their practice leads them to feel, at least, that their competitors will work too deeply into their field of practice and so in the course of time they find themselves unfamiliar with the advancement of medicine and with an inadequate knowledge of research work.

The young medical practitioner should feel at the beginning of his professional career that there is a considerable amount of clinical knowledge that may come to his very door in the form of medical magazines which contain the best work of our greatest clinicians. Men like Dr. Deaver or Dr. Mayo and many others that might be named are extensive readers of periodic medical literature.

Some of these medical gentlemen we have referred to, feel that it is not worthwhile to spend time reading medical journals and medical books. They say that they have not the time but it not infrequently happens that these men have abundant leisure to attend the Country Club or the Kiwanis or Elks or other places of similar nature. Recreation is important to the medical man as to the other class but when it is apparent that the doctor spends less time in reading his medical journals than the stock breeder or the average farmer gives to his particular journals, then we find it difficult to excuse the general medical practitioner for his lack of knowledge.—(Jour. Iowa Med. Soc., Oct., 1926.)

### CONCERNING MEDICAL SCHOOLS

If we may accept the opinion of Dr. Lyman Wilbur, it is quite probable that no college curriculum will be able to make a pathologist, physiologist, anatomist or bacteriologist unless the student has some inherent qualities that enable him to appreciate this kind of work. This being true, the medical college would do better to train a well rounded general practitioner who may devote a large part of his time to medical and surgical diagnosis which would fit him for the diseases that are ordinarily met with.

There is a complaint going up that medical schools are undertaking to turn out radiologists, urologists, rhinologists, etc., at the expense of branches of medicine that come well within the capacity of the student of general medicine. It is contended that many students come out of the schools with a superficial knowledge of scientific branches which does not give them any well rounded conception as to their usefulness in their practice. A modern medical education is supposed to involve a thorough knowledge of many branches which the average practitioner rarely if ever uses and yet when he comes to the things that he needs to know he finds that the superficial methods entered largely into his entire medical course. We take it for granted that the student should be trained to his utmost capacity for his professional work but there should be some sort of a measure as to his capacity and he should be fitted into his work according to such measures.—(Jour. Iowa Med. Soc., Oct., 1926.)



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## PRESIDENTIAL ADDRESS

JAMES S. GREEN, M.D.,  
Elizabeth, New Jersey

Delivered at the 161st Annual Meeting of the  
Medical Society of New Jersey, Atlantic  
City, June 10, 1927

The past year has been marked by a smooth harmonious functioning of the society.

The Welfare Committee was appointed and organized early in the fall, reflecting its able former chairman, Dr. Andrew F. McBride. Carrying out instructions of the House of Delegates, the legislative program was entirely defensive and they succeeded in preventing undesirable legislation proposed by the "cults". Our cordial relations with the State Board of Medical Examiners has continued. By invitation of the Welfare Committee, they are represented at the meetings of the committee by their secretary, Dr. Charles B. Kelley. Attention is called to the Board's more vigorous prosecution of violations of the Medical Practice Act.

The cordial spirit of coöperation of the various State organizations was shown, on April 10, at the "Antidiphtheria Conference", called by your officers and attended by representatives of the State Board of Health, the State Board of Education, the State Health Officers' Association and the State Antituberculosis League. The object of the meeting was to coördinate the efforts now being made in various parts of the state to prevent diphtheria by the systematic use of diphtheria toxin-antitoxin for both the preschool and school child.

A committee representing the several groups present was appointed to form a state-wide organization for development of a state-wide campaign. I solicit the hearty coöperation of every county society and every individual physician when this campaign is launched. Much effective work along this line has already been done in New York State and in various parts of this state, and, I hope to see the day when this unnecessary disease will be as rare as typhoid.

For the past 2 years, the Tristate Conference, composed of officers and representatives of the State Medical Societies of New York, Pennsylvania and New Jersey has held 3 meetings a year to discuss problems affecting the professions. The papers and discussions have been most instructive. It has been my privilege to attend all the meetings held this year and the material and inspiration of much I will now discuss is gathered from them.

At the meeting held in Atlantic City last December, the Nursing Problem was thoroughly discussed by Dr. Van Etten, of New York, Chairman of the Committee on the Nursing Question, appointed by the Trustees of the American Medical Association. I quote the recommendations of his committee submitted to the recent Washington meeting of the American Medical Association:

(1) That the business law relating to nurses' registries in all states be amended in a manner to conform to the new law in the state of New York.

(2) Recognizing the county as the most practical unit, that official nurses' registries be established in every county in every state.

(3) That every county society develop

plans for the official approval of registries which meet satisfactory standards to be erected by the county society.

(4) Sincere efforts toward coördination of all nursing service.

(5) Endorsement and encouragement of visiting nursing services.

(6) Thorough trial, by members of the American Medical Association, of hourly or part time nursing, with broad publicity of its methods and possibilities.

(7) Group nursing in hospitals.

(8) That the period of training be 28 months, the first 4 months to be devoted to concentrated study of fundamental anatomy, bacteriology, physiology, chemistry and diabetics, and, that the succeeding 2 years be devoted, as far as possible, to teaching the art of nursing, by demonstration, participation and practice.

It must be confessed that in the past we have allowed the regulation of nurses to get out of hand. An unnecessary volume of didactic instruction has been demanded—far beyond the digestive powers of the poor pupils. We sometimes wonder if the "Training School Office" thinks our hospitals exist to teach nurses instead of taking care of patients. Our hospitals are submitting to inspection by a graduate nurse from New York State, if they desire recognition for the graduates of their training schools. Thus doth the tail wag the dog! Let us adopt the suggestions of this committee and do some regulating ourselves.

At the meeting held in New York, last February, the "Relation of Lay Public Health Organizations to the Profession" was discussed. These are such bodies as the Visiting Nurse Association, the Family Welfare Society, Child Welfare Society, Crippled Children Clinics, Day Nursery, Psychologic Clinic, Antituberculosis League, and many similar organizations. There is no question of the great assistance these private agencies do and can render the profession. They contribute to public health by supplementing funds. They do work which public health boards are limited by statute from doing. They are supported by a most enthusiastic body of laity. But,

the disadvantages of their uncontrolled work is a matter of great importance. To quote from a recent address of Dr. Roland Holland of Rhode Island: "Social service has developed so rapidly in this country of late years as to reach the dignity of a profession. In every community there are many kindly people who look upon social service with the fervor of religious zealots. The growth of wealth and prosperity in this country has made the people sensible of their responsibilities toward those less fortunate than themselves and this has given an impulse to all forms of sociologic endeavor. College students are taking up the work with the spirit of the crusader, inspired by professors who consider such service idealistic. They are alert to establish new forms of charity and their activities often center around clinics for the healing of the sick. Professional social workers are rapidly supplanting zealous amateurs, and it is necessary for them to make good and to show results to their boards of directors, just as it is to be successful in any other calling in life. The result of their activity is that the highways and byways are combed for patients to fill the clinics. Duplication of effort follows. Several societies compete for the honor of assisting the same unfortunate individual to obtain medical aid or to rise in the world."

The tendency to socialize medicine is seen in most clinics. No one questions the treatment of disease in its communicable stage, for public health reasons. Teaching disease prevention is approved and a determined effort should be made to refer back to the family physician all who are able to pay. Unless the profession is willing to assume leadership in the regulation of these activities, the present day tendency toward State Medicine is sure to grow. The New York and Pennsylvania State Medical Societies have a Public Relations Committee, with similar committees in the county societies to supervise these matters and to secure medical representation on the boards of the various lay health organizations. Our recently organized Woman's Auxiliary should be of great assistance to us in securing this representation. Possibly, our Welfare Committees could undertake this



work, but, to be successful, there must be co-operation of individual physicians throughout the state. The time has passed when the physician should occupy only a passive rôle, waiting to be summoned to relieve an emergency. He is one of the interdependent agents and influences in modern life that is necessary for the effective advance of modern activities.

The work of the Executive Secretary has been most successfully and faithfully done. His educational campaign among the laity has been very well received and will, no doubt, bear fruit in the future. You all know of his work in the county societies and have appreciated both his charming personality and rare diplomacy. Our successful defensive campaign in the State Legislature was accomplished, I believe, largely by the diplomatic educational methods he employed. Of his work as Editor of the Journal, the Journal itself speaks a praise which, I know, every member of the society feels. I have often wondered, during the past year, how it was possible for him to accomplish such a volume of good work, and questioned if we were not overtaxing him. Personally, I am under obligation to him for the great aid he has cheerfully rendered me.

It has been truly said that a medical society is what its secretary makes it. We all know how good this grand old society is, and, therefore, point with pride to Dr. Morrison and the efficient conduct of his office. You, who served in the army, recall where we went for information and instruction. Dr. Morrison has been my "Sergeant Major" and I am most grateful for his guidance and assistance.

To the other officers and committee chairmen my acknowledgment of their coöperation and aid is due. My relations with all my co-workers have been so pleasant that the memory of my presidency will continue as that of a delightful experience.

To you fellow members of the society, I am at a loss to adequately express my gratitude for the great honor you have conferred on me and upon my county society. Of my shortcomings, I have been conscious and am very thankful for the consideration extended me.

## DIAGNOSIS AND TREATMENT OF THE HEMORRHAGIC DISEASES

NATHAN ROSENTHAL, M.D.

Mount Sinai Hospital, New York

The hemorrhagic diseases comprise a group of disorders characterized by hemorrhages into the skin, bleeding from the mucous membranes and from the internal organs. Their diagnosis is important from the standpoint of both the physician and the surgeon in determining decisions regarding operation, treatment and prognosis in patients said to be bleeders. It is particularly essential to determine whether a given patient is truly a bleeder. The 2 main disorders under which bleeders are classified are hemophilia and idiopathic purpura (essential thrombocytopenia or thrombolytic purpura).

Modern classification of the varieties of the hemorrhagic diseases depends, above all, upon study of the changes in the blood and in the blood-vessels. This classification is determined by the following 5 tests: (1) Clotting time of the blood, (2) bleeding time, (3) tourniquet test, (4) emanation of the blood platelets, (5) clot retraction. The blood picture is otherwise normal. The anemia depends upon the amount of blood lost.

*Clotting time of the blood.*—The clotting or coagulation time of the blood depends upon 2 factors: (1) the production of a substance called thrombin, and (2) the interaction of thrombin and fibrinogen to form fibrin. According to Bordet, thrombin is produced by the combination of 3 substances present in the plasma: cytozyme, derived from the blood platelets; serozyme, of liver origin; and calcium. A deficiency or some alteration in any one of these fundamental substances may lead to an increased coagulation time.

The best way of determining coagulation time of the blood is by the test-tube method, i. e., the withdrawal of a small amount of blood from a vein, preferably with an all glass hypodermic syringe, and injection of the blood into a small test-tube. The clotting time is the period elapsing between removal of the blood and the time when a firm clot forms so that the test-tube may be inverted without

spilling any blood. The normal clotting time, according to this method, is 7-11 minutes. Hemophilic blood may not clot for 2 hours or more.

*Bleeding time.*—When the lobe of the ear of a normal individual is punctured with a needle, blood exudes for a certain period, not over 3-4 minutes. In certain hemorrhagic diseases such bleeding may continue for hours. This test is important in differentiating purpura from hemophilia. The bleeding time is normal in hemophilia, but is prolonged in purpura.

*Capillary resistance test.*—This is also known as the tourniquet test. The arm above the elbow is constricted to prevent venous return without obliterating the radial pulse. The test is positive when petechial spots appear at the bend of the elbow or on the forearm within 5 minutes. The cuff of the sphygmomanometer may be employed for this purpose. The optimum pressure for the tourniquet test is that between the systolic and the diastolic. This test is positive in purpura but not in hemophilia.

*The blood platelets.*—The average number of blood platelets in normal blood is 250,000 per cu. mm. The number is normal in hemophilia and certain conditions resembling purpura. A marked diminution occurs in idiopathic and in certain symptomatic purpuras. The count may be as low as 300 per cu. mm. This diminution of the blood platelets is also called thrombocytopenia, or less correctly thrombopenia. There is one type of purpura in which the blood platelets are normal or slightly reduced, but associated with increased bleeding time and failure of clot retraction; such a condition is designated as thrombasthenia.

Blood platelets have the following functions to perform: (1) Coagulative—furnishing cytozyme for blood coagulation; (2) retractive—retraction of blood clot; (3) agglutinative—in wounds to stop bleeding; (4) adhesive—property of adhering to wounds or foreign bodies; (5) protective—against foreign particles and possible bacteria on account of their adhesive action.

Alterations in the number or quality of the blood platelets modify the functions of the

blood platelets. Qualitative changes (possibly an increased resistance), constitute the cause of prolonged coagulation time in hemophilia. An increase in the number of blood platelets may cause thrombosis, especially after splenectomy. A diminution in the number of blood platelets, or some change in their agglutinative and their adhesive function, may produce an increased bleeding time and fail to retract the blood clot.

There is also some relationship of blood platelets to the capillaries lining the blood-vessels. The platelets circulate at the periphery of the blood stream and are believed to fill the stomata in the capillaries to stop any extravasation of red cells.

*Retraction of blood clot.*—The blood collected in a clean test-tube for the purpose of determining the clotting time is allowed to stand. Normal blood will retract evenly from the sides of the test-tube in  $\frac{1}{2}$ -1 hour, and leave a space filled with clear serum. In purpura, due to a marked diminution of the blood platelets or some alteration of their quality, clot retraction is absent. It is important to collect the blood in a syringe and test-tube previously washed with normal saline solution, as clot retraction depends upon the action of uninjured blood platelets. Blood collected with hypertonic or hypotonic saline solution or any other substance destroying the platelets will not retract. Retraction usually fails to occur when the platelet count is below 50,000 per cu. mm., or when the blood platelets are abnormal (thrombasthenia).

Upon the foregoing determinations depends diagnosis of the various hemorrhagic diseases which will now be discussed in detail. The salient features of treatment will also be considered.

*Disorders in which clotting time is prolonged.*—In hemophilia the coagulation time is prolonged usually over 20 minutes; bleeding time and blood platelets are normal. The hemorrhages are initiated by trauma. This disease is usually a familial one, transmitted by the female to the male. Sporadic cases without a family history are occasionally seen. We have had also under observation one case of hemophilia in the female in which the clotting time varied from 25 minutes to  $1\frac{1}{2}$  hours.



Urgent treatment is indicated in the condition in bleeding from the nose or socket of an extracted tooth, or in bleeding into the skin, joints or internal organs. Bearing in mind that the latest theory in regard to the cause of this disorder is a deficiency of the blood platelets in supplying cytozyme for the formation of thrombin, the first step in treatment should consist in furnishing a supply of normal blood platelets. This is done by supplying normal blood, locally by means of tampons saturated with fresh blood, and generally by a small transfusion. This normal blood should be obtained from a suitable donor. Usually 100 c.c. blood injected intravenously is sufficient to render the blood of the hemophiliac more coagulable for a few days. When fresh normal blood is not available, fresh human serum, thromboplastin, or other coagulants occasionally suffice. X-ray therapy is useless and may prolong coagulation time of the blood still further (Table I). Sodium citrate that diminishes the coagulation of the blood normally after intravenous or intramuscular injection, produces a transitory diminution and then a marked prolongation of the clotting time in hemophilia.

The prophylactic treatment of this condition is important. Hemophiliacs must be warned to avoid injuries and not to indulge in violent exercise. Operations should not be done unless urgently required.

*Jaundice and cholemia.*—The increased clotting time in these conditions is due first to fixation of the calcium by the bile salts, thus preventing the combination of cytozyme and serozyne to form thrombin, and second to a diminution of blood fibrinogen as a result of impaired liver function. Any operative procedure in such cases should be preceded by treatment with calcium lactate by mouth, or calcium chloride intravenously, (5-10 c.c. 5% solution). One must also be prepared for a blood transfusion.

*Disorders associated with a markedly diminished number of blood platelets (thrombocytopenia), prolonged bleeding time, positive capillary resistance test and no clot retraction.*—This group is known as Morbus Maculosis Werlhofii, purpura hemorrhagica or, still better, essential thrombocytopenia. The condi-

tion may be idiopathic or symptomatic, as in leukemia, subacute endocarditis, typhoid fever, or in idiosyncrasies to drugs such as quinin and iodine. Essential thrombocytopenia may occur in acute or chronic form. The acute cases either clear up or run a fatal course. The chronic cases run a continuous or an intermittent course. The underlying cause is not known. From time to time different ideas have been advanced as to etiology, such as infection, endocrine derangements, liver disturbances. The rôle of the spleen and its relation to the bone marrow have recently received attention in this connection. Frank advanced the idea that the thrombocytopenia is due to an insufficiency of the megakaryocytes, from which the blood platelets are derived. This deficiency is brought about by a myelotoxic or inhibitory action of the spleen; Kaznelson believes that the spleen assumes an increased function and destroys more blood platelets than normally, this thrombocytolytic action being the cause of the diminution of the platelets. In his study of a case of chronic purpura of long standing with enlarged spleen, secondary anemia and a platelet count as low as 300 per cu. mm., Kaznelson made the important observation that the hemorrhagic symptoms all promptly disappeared after splenectomy. The blood platelets increased to 600,000 two days after operation, but later dropped to 100,000. Ten years after splenectomy this patient is apparently cured. Numerous other cases have been treated since with equal success. The increase of blood platelets after splenectomy has been reported in other diseases. The author has recently made similar observations in Banti's disease, Gaucher's disease, splenomegalic cirrhosis of the liver, and even after removal of the normal spleen. This thrombocytolytic function of the spleen, which Kaznelson considers to be the function of the reticulo-endothelial system, is assumed by the liver lymph nodes and other reticulo-endothelial structures after splenectomy but not to the same extent. Following the immediate rise, the blood platelets either return to normal number or to their previous low level.

The treatment of purpura thus assumes a new aspect on account of recent observations

of the relation of the spleen to this disease. According to one observation, it is rare to find an enlarged spleen in acute or chronic purpura. Here the spleen plays a passive rôle in carrying out its functions of destroying or removing the normal quota of blood platelets from the circulation. This has led the author to assume that the etiologic factor in most of the purpuras which are not accompanied by splenomegaly is still unknown but that the spleen aggravates a condition such as thrombocytopenia by reducing the number of blood platelets still further, and also modifying their quality. In acute purpura the blood platelets are evidently produced in normal numbers but undergo rapid destruction not by the spleen but by some unknown agent. In chronic purpura there appears to be a diminished production of blood platelets, of poor quality. In this chronic form the blood platelets may often increase in numbers but still remain altered qualitatively.

In regard to treatment of the purpuras one must consider the acute and chronic thrombocytopenias separately. Acute cases occurring without a previous history offer a bad prognosis. Transfusions of either citrated or whole blood usually aggravate the condition. Splenectomy is ineffective. Some acute cases recover promptly. The intravenous use of sodium citrate is of no value on account of its deleterious action on blood platelets and its effect in increasing the coagulation time of the blood in this condition.

The treatment of chronic cases offers more hope. One is usually called upon to treat nasal hemorrhages, bleeding gums or tooth sockets, menorrhagia, etc. Where the bleeding point is accessible, applications of fresh blood act best. Thromboplastin and other coagulants are useful. Small or large transfusions, depending upon the degree of anemia present, should be done only when absolutely necessary. Subcutaneous injections of fresh human serum are beneficial but not curative. Recently the ultraviolet lamp has been advocated for the treatment of chronic purpura. Its use in 5 cases was not followed by any curative effect; 3 of these were unimproved. Splenectomy is the only curative measure known today for chronic purpura (essential

thrombocytopenia). We have done 20 splenectomies so far with only one exitus, due to a cerebral hemorrhage which developed before operation. The operation is frequently a life saving measure when all other efforts have failed.

*Aplastic anemia.*—This disease is rare and is characterized by a rapid course, marked hemorrhagic manifestations, profound anemia, leukopenia, relative lymphocytosis, marked thrombocytopenia and slightly prolonged coagulation time of the blood. The disease is rarely chronic.

*Disorders resembling purpura accompanied only occasionally by a positive capillary resistance test.*—The bleeding time, clot retraction and coagulation time of the blood are all normal. The skin manifestations are often associated with urticaria. The blood platelets are normal, slightly increased, or slightly diminished, and do not play a rôle in etiology. This group is often known as anaphylactoid or toxic purpura. It includes a large number of conditions, such as scurvy (avitaminosis), Henoch's purpura, Schönlein's disease or purpura rheumatica, Osler's disease or visceral crisis with erythemia, purpura in women during the menopause (possibly endocrinal in character), and cases of increased capillary fragility. The hemorrhages and other skin manifestations are benign, and are usually relieved by treatment of the primary condition.

#### CONCLUSIONS

The true hemorrhagic disorders are due to some altered condition of the blood platelets.

Their diagnosis depends upon the various tests to determine changes arising in these structures. These tests are the determination of clotting time of the blood, the bleeding time, the capillary resistance test, number of blood platelets in the circulating blood, and the clot retraction. Such tests are important for differentiation of true hemorrhagic disorders from other disorders resembling them.

Hemophilia is characterized by a prolonged clotting time of the blood. Purpura is characterized by a diminution of the number of blood platelets (thrombocytopenia).

Treatment of the various disorders is mainly prophylactic. Instructions should be given



to patients to avoid injuries and overexertion, and to notify the physician that a bleeding tendency exists when an operative procedure is contemplated.

Splenectomy is the only curative treatment for chronic purpura or essential thrombocytopenia. Transfusions of human blood, calcium injections of fresh human serum, coagulants or radiotherapy should be tried, according to the condition present. The effect of any kind of therapy should be studied according to the plan outlined, to determine its value for the particular patient.

Table I

	Case A. K. Male	Case R. A. Female
Hgb.	90%	54%
R.B.C.	4,600,000	3,880,000
W.B.C.	10,400	14,000
Platelets	291,000	218,000
Polys. Neut.	61.0%	83%
Polys. Eos.	2.6%	
Polys. Bas.	0.3%	
Lymphocytes	31.0%	14%
Monocytes	4.6%	3%
Coagulation Time	1 hr. 20 min.	1 hr. 10 min.
Bleeding Time	1½ minutes	2½ minutes
Tourniquet Test	Negative	Negative
Clot Retraction	Normal	Normal
Effect of x-ray treatment to splenic region in male hemophiliac		
Coagulation time before treatment	1 hr. 10 min.	
Coagulation time 1 hr. after treatment	1 hr. 35 min.	
Coagulation time 1 day after treatment	3 hr. (soft clot)	

Coagulation time 5 days after treatment 2 hr. 30 min.  
Effect of transfusion of 20 c.c. blood  
Coagulation time 2 hr. after transfusion 15 min.  
Coagulation time 1 day after transfusion 55 min.

Table II

	Acute thrombo- cytopenia R. F.	Chronic thrombo- cytopenia M. N.
Hgb.	90% (Kuttner)	55%
Red Blood Cells	4,884,000	3,776,000
White Blood Cells	8200	8200
Platelets	300	12,800
Polys. Neut.	54.0%	61%
Polys. Eos.	3.0%	3%
Polys. Bas.	0.5%	
Myelocytes Neut.	0.5%	
Lymphocytes	37.5%	34%
Monocytes	4.5%	2%
Coagulation Time	8 min.	6 min.
Bleeding Time	25 min.	21 min.
Tourniquet Test	Strongly positive	Positive
Clot Retraction	None	None

Table III

Aplastic anemia

	R. A.	M. M.
Hgb.	15%	35%
Red Blood Cells	828,000	1,120,000
White Blood Cells	1200	1200
Platelets	1500 (Pl'a)	20,000 (Pl'a)
Polys. Neut.	19.0%	22%
Myelocytes Neut.	3.0%	3%
Myeloblasts	5.0%	1%
Lymphocytes	67.5%	58%
Monocytes	5.5%	5%
Coagulation Time	14 min.	15 min.
Bleeding Time	20 min.	27 min.
Tourniquet Test	Positive	Positive
Clot Retraction	None	None

Table IV

	Coagulation Time	Bleeding Time	Tourniquet Test	Blood Platelets	Clot Retraction
Hemophilia	Greatly Increased	Normal	Negative	Normal	Normal
Acute and Chronic Thrombocytopenia	Normal	Greatly Increased	Positive	Greatly Diminished	None
Schoculein-Henoch	Normal	Normal	Positive or Negative	Normal	Normal
Purpura, Scurvy					

## A DISCUSSION OF RECENT ADVANCES IN THE STUDY OF HEART DISEASE

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The magnitude of the problem of heart disease prohibits any but the briefest of discussions in this paper. A few of the more outstanding and more radical changes in the general attitude toward this problem have been chosen for brief consideration, and the most that can be gained by those who read this article will be perhaps an indication of the more modern ideas concerning the prevention and relief of heart disease.

That at least 2 out of every 100 individuals have some abnormality of the cardiovascular system has been proved by the careful physical examinations during the World War, by Life Insurance companies, and by the results obtained by physicians in examining school children. In Philadelphia, in 1900, the death rate averaged about 250 per 100,000 for tuberculosis and 131 per 100,000 for heart disease. In 1924, this rate had dropped for tuberculosis to 104 and had risen to over 200 for heart disease. It is due to figures such as these that the medical profession, as a whole, has been aroused to the necessity of attacking this problem in a careful manner. This, in turn, has led to organization of an American Heart Association and many state and city organizations throughout the country, as well as Heart Clinics in the various hospitals. It has taken 25 years to make a definite impression upon the death rate due to tuberculosis, and it is certainly time that a similar movement be started to accomplish the same for heart disease. We must look to the general practitioner for help in this campaign of educating the lay public.

A radical step forward was made with the realization that etiology was a most important factor in determining the diagnosis, prognosis and treatment of heart cases. In order to emphasize this fact a definite nomenclature for a complete diagnosis in all

heart cases has been developed by the American Heart Association<sup>(1)</sup>, and I desire to urge the use of such a diagnosis, which, to be complete, should include an etiologic anatomic, physiologic and functional diagnosis. When each individual physician considers it essential to make such a complete diagnosis in all cardiovascular cases it seems as though the prognosis will necessarily be much more accurate and the treatment more effectual.

Our attitude toward congenital heart disease has changed somewhat. Although prognosis in the typical case with cyanosis and finger clubbing is no better, yet we are beginning to realize that there are many congenital cardiovascular defects, which, though giving abnormal physical signs, yet never appear to impair the circulatory efficiency of the individual nor to limit his span of life. In other words, many children relegated to a life of invalidism, in the past, because of abnormal cardiovascular findings, which we now believe unimportant from a circulatory efficiency standpoint may be given a much more optimistic prognosis and lead practically normal lives while kept under careful observation from year to year by the family physician.

The infective type of cardiovascular disease due to acute rheumatic fever, chorea, various foci of infection, scarlet fever, pneumonia, syphilis, gonorrhea, rheumatoid arthritis, and diphtheria offers the greatest field for possible prevention. It is impossible to go carefully into the factors of prevention in each of these individual infections. Suffice to say that in the so-called rheumatic group, in spite of the lack of confirmatory statistics, it seems to most physicians following such cases, that patients undergoing a careful removal of the so-called foci of infection tend to suffer less recurrence of the rheumatic syndrome and to present a better prognosis, from a cardiovascular standpoint. More definite information along this line will be available after a few years of careful follow-up of these cases in the heart clinics, but those of you in general practice should feel your responsibility deeply in following and reporting such cases, with the



hope of contributing much to our information. The statistics gathered by Sir James MacKenzie<sup>(2)</sup>, while in general practice, should be of inspiration in this direction.

The writings of Swift<sup>(3)</sup> emphasize the necessity of long and careful follow-up in cases of post-rheumatic cardiac damage, and stress the fact that long after joint symptoms have disappeared there may be a definite active infection in the heart. Careful readings of the pulse and temperature, routine leukocyte counts and observation as to gain in weight and changes in the general clinical picture, are the only sure ways of knowing that these children have overcome or, at least, succeeded in arresting the active infection. Recent studies by pathologists have revealed active Aschoff bodies in the myocardium in cases as long as 32 years after all evidence of arthritis had disappeared!

Another step forward has been the realization that in the treatment of all cases of heart disease an estimation of the cardiovascular reserve<sup>(4)</sup> is an all important factor. We must admit that an accurate estimation of this reserve is most difficult and depends on many factors. The most important of these is the amount of cardiac enlargement, and the importance of attempting to estimate the size of the heart cannot be overemphasized. Clinically, as in examination of the lungs, we must avail ourselves of inspection, palpation and percussion—methods of diagnosis which have been sadly neglected in the study of heart disease because of the emphasis placed upon auscultation. It is in this attempt to estimate the cardiovascular reserve that we may often secure aid from fluoroscopic and electrocardiographic examinations. The fact that in many cases the fluoroscope and electrocardiogram fail us in helping to make a definite diagnosis should not throw into disrepute such valuable aids, and the more we use them the more often will we be gratified by receiving definite assistance toward a correct diagnosis.

The importance of systolic murmurs has been fully discussed in many books and ar-

ticles during the past 10 years. Some feel that in deprecating their significance the pendulum of medical opinion has swung too far. There is no doubt, however, that systolic murmurs found in youth, without evidence of past infections which damage the heart, without evidence of cardiac enlargement and without evidence of circulatory insufficiency, have been greatly overemphasized. The sanest attitude seems to be that systolic murmurs call our attention to the heart, for further investigation and frequent cardiac examinations, but that in themselves they are not necessarily evidences of cardiac disease; only in the presence of other murmurs, cardiac enlargement, or a history of infection are we justified in limiting the daily routine of individuals under 35 or 40 years of age.

Finally, in this rather rambling discussion of cardiovascular problems, let me emphasize the change in attitude toward digitalis therapy. Briefly, it may be stated that digitalis is only indicated in those individuals in whom definite evidence of some limitation in the circulatory efficiency can be demonstrated. In the presence of definite congestive heart failure, 2 types of cases must be considered: (1) those with a totally irregular rhythm (auricular fibrillation), and (2) those with a regular rhythm. It is the duty of every physician to be able to differentiate definitely between these types, or else to call for assistance, either by consultation or electrocardiogram. To patients with a totally irregular rhythm much larger doses of digitalis may be given, and the dosage should be regulated by the apical rate of the heart instead of, as in the past, by the pulse rate. In other words, digitalis should be given until the heart rate, *counted at the apex*, is reduced to that number of beats per minute at which the patient's circulation is most efficient, and it should be held at this rate with a maintenance dose of digitalis. This can be done for years, with the patient ambulatory, without evidence of toxic effects in the majority of cases, so long as the dosage is regulated by the apical rate and not by the pulse rate alone.

## SUMMARY

(1) The magnitude of the problem of cardiovascular disease is emphasized and the present manner of attack briefly outlined.

(2) The importance of a complete diagnosis in each case is urged, with especial emphasis upon etiology.

(3) The importance of estimation of the cardiovascular reserve in prognosis and treatment is stressed.

(4) The status of systolic murmurs is briefly discussed.

(5) Larger and more constant digitalis dosage, controlled by the rate of the heart as counted at the apex in patients with auricular fibrillation, is urged.

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## THE ELECTROCARDIOGRAPH: ITS PRACTICAL VALUE

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The greater use to which the electrocardiograph has been put in recent years, and the resultant greater mass of information that followed its more extensive use, make necessary a more widespread knowledge by the physician of its practical value. It is, therefore, upon this phase of cardiology and not upon the clinical phase, that this paper is based. The clinical examination still surpasses the machine in most heart affections but in recognition of the irregularities of the heart beat the machine is first. A thorough examination requires employment of both methods.

The electrocardiograph is of value in the diagnosis, prognosis, and treatment of heart disease. In diagnosis, especially of the arrhythmias, a tracing locates the site

and differentiates the character of the irregularity. Prognosis depends upon the condition of the myocardium, and ample information is furnished by the tracing regarding this muscle. Treatment depends upon a proper diagnosis. In addition, signs are present on tracings that regulate the indications for and dosage of cardiac drugs.

In disease of the pericardium the tracings show nothing distinctive. Their value exists because they give information regarding enlargement and regarding condition of the heart muscle. These possible myocardial changes will be discussed later.

In diseases of the endocardium more information may be available. There are many patients who present themselves to the physician because, either through an examination for life insurance or as a result of an examination for some other condition, they have been told that they have a murmur or a "leaking heart". Reference is here made only to systolic murmurs; diastolic murmurs are unquestionably always of organic origin. It is the systolic murmur, particularly at the apex, that is so often taken as a positive indication of heart disease—even when there are no other signs present. Many observers, like Cabot<sup>(1)</sup>, of Boston, believe that a pure organic mitral insufficiency never exists. This is probably a too radical statement. Sprague and White<sup>(2)</sup> believe that many such cases do exist. The foregoing remarks are made only to show in what disrepute the apical systolic murmur has fallen. Such a murmur is not of organic origin unless there are present some of the following conditions: physical signs of enlargement, definite history of a predisposing infection, elevated blood pressure, or an abnormal electrocardiogram.

In mitral stenosis, the electrocardiographic diagnosis is almost certain when there are found a tall, usually notched P or auricular wave and a preponderance of electrical energy in the right ventricle. The diagnosis of this or any endocardial lesion is of course never made by the tracing; a tracing is made for corroboration and amplification, and not primarily for diagnosis.

A murmur heard loudest over the so-



called pulmonary area, with perhaps some other suggestive signs, is probably from a congenitally diseased heart if the tracing shows right sided preponderance.

Tracings of hearts with aortic lesions, except for signs of enlargement or of other evidences of myocardial changes, are negative.

The next consideration is that of diseases of the myocardium and the arrhythmias. As it is in this group of cases that most good is derived from tracings, it will be well to consider briefly the normal electrocardiogram. There are 3 leads: lead 1 taps the cardiac current between right and left arm; lead 2 taps the circuit at the right arm and left leg; lead 3 takes its current at the left arm and left leg electrodes. The waves are lettered arbitrarily as follows: P is first, and is the auricular wave; the first part of the ventricular cycle is next, being called the QRS complex, and it should never exceed  $1/10$  sec.; the T wave is the last and is also ventricular. The space between 2 sets of waves is diastole and is of course devoid of waves. The P-R interval is the time of impulse conduction between the sino-auricular node and the ventricle, and should never exceed  $1/5$  sec.

One of the most common arrhythmias is sinus arrhythmia, a waxing and waning in the heart rate in the production of which the respirations and the vagus nerves are involved. An old conception was that absence of this arrhythmia was a notable thing in organic heart disease. This is not so, as sinus arrhythmia may be present in severe forms of heart disease and may be absent, or present to a slight degree, in normal hearts. When this condition is exaggerated confusion may arise with other arrhythmias but an electrocardiogram will give the true picture.

Premature contractions or extrasystoles exhibit wide ranges in their frequency and hence render diagnosis at times difficult. When by their frequency they produce a picture similar to that of auricular fibrillation, the latter condition being serious and demanding limitation of physical exertions and mental activities in order to postpone

death, whereas the diagnosis of extrasystoles would render an entirely different outlook possible, the importance of heart tracings can readily be seen. Premature contractions may be either auricular or ventricular. To know that a patient has extrasystoles is not enough because treatment is not the same for all forms. It has recently been shown<sup>(3)</sup> that digitalis in full doses will wipe out auricular extrasystoles. Digitalis slows the heart and exaggerates the presence of ventricular extrasystoles. Hence, other measures such as eradication of focal infections, lessening the amount of tobacco used, and removal of the patient from any source of severe mental strain, must be instituted in order to free the patient from this irregularity.

The importance of differentiating auricular fibrillation from extrasystoles of premature contractions has just been mentioned. Fibrillation of the auricle is due to a circular movement of the auricular muscle. This impulse may be travelling around the auricle from 400 to 500 times per minute. In a sort of centrifugal manner, impulses are cast off which find their way at irregular intervals to the ventricle. Digitalis is perhaps the best, certainly the most commonly used, drug to combat this condition. Yet with this drug, even though by its use the ventricular rate approximates the pulse rate and the rhythm is made almost regular, the tracings in nonparoxysmal auricular fibrillation continue to show an auricular circus movement. Quinidin sulphate is the only known drug that will break this movement and restore normal rhythm.

In order to illustrate the difficulty that presents itself at times in clinical differentiation of the arrhythmias a brief summary of the history of a patient at the Pennsylvania Hospital Heart Clinic is given. The patient was a colored man, about 35 years of age, and a stevedore by occupation. His chief complaint was breathlessness on exertion. The physical examination revealed chronic mitral endocarditis. The heart was irregular, slow—about 76 per minute—and showed no pulse deficit. The question arose

as to what type of irregularity was present, premature contractions or auricular fibrillation. It was an important point to settle because of the character of his work. Premature contractions are no contraindication to hard work; fibrillation is. Clinically there was no way of differentiating. Tracings revealed auricular fibrillation. His work was changed; a little medication ordered; his symptoms left; and an efficient wage-earner was the result.

Heart block, and here reference is made to block of the main bundle of His, is divided according to its severity into 3 stages; (a) lengthening of the P-R interval, (b) partial, and (c) complete, heart block. On the electrocardiogram, the P-R interval stands for the time it takes for the normal impulse to travel from its origin in the sino-auricular node across the auricle to the auriculo-ventricular node. This time should never exceed  $1/5$  sec. When the P-R interval exceeds this, the first stage of heart block is present. If this gets progressively worse, and the interval widens occasionally, the ventricle will fail to respond and a "dropped beat" or partial heart block is present. So-called dropped beats at the wrist are often not the dropped beats of heart blocks but are due to weak extrasystoles that do not find their way to the wrist. In a given case, an electrocardiogram clears up whatever doubt may exist concerning this irregularity. Complete disassociation between auricle and ventricle is complete heart block, and requires but little aid from the electrocardiograph to diagnose, particularly if the ventricular rate is extremely low.

Another irregularity that requires the machine for its accurate diagnosis is paroxysmal tachycardia. This condition is due to usurping of the function of the sino-auricular node by another focus of impulse formation. This focus may be in auricle or ventricle. The auricular type is, as a rule, not dangerous, while the ventricular type is always dangerous. This condition may be readily mistaken for simple tachycardia. A patient at the St. Francis Hospital Heart Clinic presented himself with but one an-

noying symptom and that was a steady, rapid heart. A tracing showed paroxysmal tachycardia of the auricular type. Vagal pressure and an ice bag to the precordium terminated the attack.

Auricular flutter, a disorder of the heart beat accompanied by rapid pulse rate, must be differentiated from paroxysmal tachycardia and this can readily be done by a tracing. The chief reason for the need of differentiation is that the treatment is different. Digitalis has practically no effect on the heart during an attack of paroxysmal tachycardia. In flutter of the auricle, digitalis produces fibrillation of the auricle which shortly reverts back to normal rhythm.

Sinus tachycardia is not an arrhythmia but is a fast heart, regular, and whose impulses arise normally in the sino-auricular node. It is at times seen sustained for a long period of time, as in cases of hyperthyroidism, and because of the importance of proper treatment should be differentiated from the paroxysmal type of tachycardia and from auricular flutter. The other extreme is sinus bradycardia, a slow heart due to a slow rate of impulse formation at the sinus node. An overactive vagus may be the cause of the slow impulse formation. This condition may occur in normal or in diseased hearts, it being in itself not a pathologic condition. An electrocardiogram is necessary to accurately classify it, for when it produces heart rates of 50 per minute it may readily be mistaken for heart block. A young woman about to be operated on at the St. Francis Hospital for appendicitis was discovered to have a pulse rate of from 52 to 60 per minute. A tracing was taken to ascertain whether a block existed or whether the slow pulse was due to sinus bradycardia. It was found to be the latter and was merely a normal condition due to strong vagal stimulation.

Branch bundle block is a condition of grave significance and its recognition, which is important because of the unfavorable prognosis it carries, can be made only by means of the electrocardiograph. It is the blocking by disease, of either the right or



left branch of the bundle of His. The mere blocking in itself is perhaps not so serious but it is evident that an area of pathology that can block off impulses to one or the other branch is usually but part of a widespread distribution of disease. The prognosis is death within 2 years. That is the average life expectancy of such a patient. The right branch is usually the one involved because it is longer and does not divide quickly into its branches. The left main branch of the bundle of His cuts through the cardiac septum and at once divides, rendering the production of a block less likely than on the right side. A block of one of the branches causes the ventricles to contract at slightly different intervals, widening and notching the QRS complex. It is very evident, therefore, that before an accurate cardiac prognosis can be given an electrocardiogram must be taken.

Of the first 30 electrocardiograms taken at the St. Francis Hospital, three showed signs of branch bundle block. One was in a man of 60 with clinical signs of an old cerebral apoplexy; here the tracing was merely corroborative as the prognosis was bad clinically. The second was a man who had moderate heart failure but whose symptoms were sufficiently marked so that a grave prognosis might have been made on the clinical findings. The third was in a man aged 38 whose only symptoms were indigestion and weakness. Clinically he showed signs of aortic insufficiency. The tracings showed a block of the left branch of the bundle of His. This rendered the prognosis poor, in spite of his fairly good physical condition. This patient dropped dead about 1 month after the tracing was taken. The age of the patient with branch bundle block does not influence the prognosis; it is the extent of the myocardial degeneration that limits life.

Another sign of serious import that a tracing may show is inversion of the T wave. When this occurs in lead 3 only, or in any lead when the patient is under the influence of digitalis, it may be disregarded. However, when it occurs in lead 1 or 2, or both, in a digitalis-free patient, the progno-

sis must be guarded. It is probably not as serious a sign as branch bundle block, but is of sufficient importance to be taken into consideration in giving a prognosis.

Low voltage, that is a diminution in the height of the waves, especially the QRS complex, in lead 1 or 2, is another bad sign, though again not as valuable in diagnosing severe myocardial disease as branch bundle block.

Enlargement of the heart either to the right or the left can be determined by a tracing. The electrocardiograms showing enlargement are designated as showing right or left preponderance. The tracing is dependent upon an excess of a preponderance of electric energy generated in one ventricle over the other. A displaced heart with its electrical axis shifted, will also give a similar tracing even though the heart is normal. This emphasizes the need of a thorough physical examination with a tracing. In some cases with enlargement of both right and left sides of the heart there may be an equal output of electric energy from both ventricles resulting, therefore, in a normal tracing. This is, of course, the exception, most enlargements returning their characteristic tracing, a right or left preponderance depending on the side enlarged. The most common causes of right sided enlargement are heart disease, acquired mitral stenosis, emphysema, and any fibrotic condition of the lungs that obliterates a moderately large number of pulmonary blood-vessels. Left sided hypertrophy is most commonly due to acquired heart disease.

The next cardiac abnormality to be discussed, and one that has the personal interest of many physicians, is angina pectoris. This condition, whether due to aortitis as described by Allbutt, or coronary endarteritis, as was the teaching up until a few years ago, is always an alarming one. Each consecutive attack of pain may be the worst and may terminate fatally. The physician is ever on the alert for ways and means to render an intelligent prognosis and give proper treatment. How much will the electrocardiograph reveal concerning

this condition? In the diagnosis of angina pectoris some tracings will exhibit a prominent "Q" wave and a peculiar "T" called the coronary "T" wave. There are other cases of true angina that present no abnormality on the tracing. Still, no diagnosis is complete without a tracing. In the prognosis of angina aid can be expected from the electrocardiograph. Inverted T waves, signs of intraventricular and auriculoventricular block, and low voltage are all signs that increase the gravity of prognosis. Cases of true angina pectoris, whose attacks are brought on by exertion and do not come on while at rest or during sleep, whose hearts clinically do not show much enlargement or other abnormalities, and whose electrocardiograms are practically normal may, with rest and more rest, expect many years of useful existence. Unfortunately, this may be said only for the average case. There are patients who die in the first attack. There are those whose hearts are apparently normal, with normal tracings, and who die just as readily as do those with abnormal tracings. However, most of the deaths due to angina occur in those whose tracings showed some abnormality.

Coronary thrombosis is different. It is more serious than, and is often the end picture of, angina pectoris. In a case of precordial pain, unrelieved by nitrites, and but little aided by morphin, whose blood pressure, whether previously high or not, drops, and whose tracing shows some abnormality noted above, a sudden fatal outcome may be expected at any moment.

During the course of acute infectious diseases the question of true cardiac involvement is often raised. Are the accompanying signs of circulatory involvement due to actual heart disease or to reflex vasomotor disturbances from the infection or from hyperpyrexia? This cannot always be answered. The electrocardiograph will often render valuable aid in arriving at the correct conclusion. In rheumatic fever, even though there be no apparent signs of heart affection, in most cases there is found a defect<sup>(4)</sup> in conduc-

tion—a lengthening of the P-R interval. Even, within a few weeks after onset enlargement of the heart can be demonstrated by the electrocardiograph. And what is true concerning the use of the machine and its indications in this case is similarly true of any infection with suspicious signs of cardiac involvement.

In cases of heart disease that are being treated with digitalis, signs of overdosage are to be found on tracings before there is clinical evidence of it. These signs are the presence of many extrasystoles, often arranged alternately with normal heart beats—called bigeminy; inverted T waves—here losing their prognostic importance; and, finally, the finding on the tracing of evidential partial heart block.

One of the chief uses of the electrocardiograph, and one that is very frequently met with, is the assistance that it renders in helping the physician differentiate between the neurasthenic and the true cardiac patient. There are as many people without heart disease who believe themselves to be cardiac invalids, as there are persons who actually have heart trouble. They are the ones who have defective vasomotor tone and exhibit rapid heart rates, or whose vagus nerves are overactive, with resultant bradycardia, which when accompanied by extrasystoles makes for a most terrified patient. The substitution of an abdominal binder for digitalis in many of these so-called invalids would greatly add to the mental comfort of both patient and doctor. One patient is brought to mind at this point—one who is unfortunate enough to believe that he really has heart disease. He is a weekly caller. His chief complaints are a slow pulse and fear. His hand is ever on his pulse, which at times drops to 52 per minute. Clinically, he presents a moderately low blood pressure, nothing else. An electrocardiogram showed only sinus bradycardia. Reassurance with occasional doses of atropin mends his frame of mind for a while. He is organically sound, but he needs periodic examinations in order that he may be comforted.

The use to which heart tracings may be



put should not be overlooked by surgeons. In patients over 45 or 50, there is always present the possibility of cardiac accident during or after any operation. It is a very embarrassing experience to be required to tell the relatives that the patient suddenly died during the operation. And many deaths after operation, even during early convalescence, especially in a patient over 50, that are attributed generally to pulmonary embolism, are undoubtedly due to angina pectoris or coronary thrombosis. This may be true in spite of a negative history for cardiac pain. To avoid as much as possible the likelihood of cardiac deaths complicating surgical procedures, thorough physical examinations and heart tracings should be made on all patients over 50 who are about to be operated upon and on all patients with known heart disease irrespective of previous tracings.

#### SUMMARY

This paper should not be considered as an extensive review of cardiology. It has as its main topic the practical value of electrocardiography. Many details and technical descriptions are omitted. Clinical diagnosis has not been mentioned except to emphasize its importance in routine cardiac examinations. The electrocardiograph has its place in cardiology and it is a very important one. To expect a proper diagnosis by a clinician without use of the machine is impossible. And in a similar manner, it is futile to expect from the cardiologist a proper heart survey unless he is permitted to give the patient a clinical examination.

Diseases of the heart furnish at present one of the most frequent causes of death. Tuberculosis, once so prominent a cause, has by proper methods, including sanatoria, clinics, public lectures and press publicity, been very nearly displaced as a major cause of death. What has been done in tuberculosis can be done in diseases of the heart by similar methods. It requires that the physician shall make himself familiar with all the newer methods of diagnosis and treatment just as he learned to use the laboratory and x-ray in the eradication of tuberculosis.

By means of tracings, the origin and char-

acter of the arrhythmias can be determined. Other abnormalities present in regular hearts can be noted. Signs may be present that will help in the differentiation of endocardial lesions. By means of the abnormalities noted, the prognosis can be intelligently given. On the correct diagnosis, the treatment depends. And lastly, in use of the electrocardiograph as a routine in periodic health examinations and in preoperative cases over 50 years of age, unsuspected heart lesions may be picked up that with proper management may give to the patient many years of useful and pleasant life.

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### THE IMPORTANT ETIOLOGIC FACTORS IN CARDIAC DISEASE

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Notwithstanding the tremendous interest which has of late years been manifested in the more accurate study of cardiac diseases, and in spite of our now much more satisfactory understanding of cardiac physiology and our better knowledge of pharmacology, the treatment of cardiac disease has not as yet received the successful impetus which so much preliminary knowledge justifies us to expect. As compared to the result attained in the management of cardiac disease when I was a student at the University of Michigan some 32 years ago, our present day methods of treatment have not shown flattering advance, such as has, for example, taken place in infections in general, in renal disease, and in many other branches of medicine. Back in 1894 and 1895 Cushny taught us that digitalis was to be given

until digitalis effect was produced. All the researches concerning this important drug, and they are legion, have not changed this dictum. Notwithstanding our far better comprehension of digitalis, our more potent and accurate preparations, much of the pioneer work of which was inspired or performed by Cushny and his students, we have thus far arrived at little more knowledge of its indications and limitations than were given us in the lecture rooms of Michigan when Cushny said that the drug was to be used experimentally in all forms of cardiac deficiency; if it gave benefit it was to be continued, if not, it should not be further employed. Very few new drugs or methods of signal value have established themselves in cardiac therapeutics, but very many have been discarded, some probably unwisely.

This certainly leaves very much to be desired. We have not yet sufficiently prevented cardiac disease. We have not as yet adequately added to the comfort, efficiency, or life expectation of the heart patient, as compared to many other disease conditions, and yet cardiac diseases are constantly on the increase and are becoming year by year a more serious factor in our death rate and in our disability lists. Let us not flatter ourselves. Of the cardiac arrhythmias we now have a very certain and specific knowledge. Have we accordingly improved or prolonged the efficiency of these patients? Somewhat only. What do we know of the nervous influences in the production of cardiac disease? Most important of all, have we afforded adequate medical relief to our sufferers from circulatory disease for these 30 years and more of definite study?

The tremendous advance which experimental medicine on the lower animals, and the methods of greater precision, such as the electrocardiograph, have accomplished in our newer understanding of circulatory diseases have not given us, it seems to me, a sufficient advance in our treatment of the diseases of the heart. We have, perhaps as a result, fallen off somewhat in our auscultation and other objective methods of study of the heart. The x-ray plate and the fluoroscope have dulled to some extent the interest of the young clinician in the older, but still equally accurate, and

more accessible methods of skilled physical examination. Many of my interns who can talk most convincingly of the electrocardiogram or intelligently read an x-ray plate are unable to make and to some extent uninterested in a proper physical examination of the heart, in the appraisal or interpretation of heart murmurs, or in a practical application of the study of the pulse. Yet, we have no instruments of precision comparable in accuracy to the trained human ear and eye, or to the adequately trained sense of touch.

It has also seemed to me that we have fallen off in our proper study of the pathologic anatomy of the circulatory diseases and in the application of its lessons to the management of the cases under study. Aschoff, Libman, Warthin, Ewing and a few others have kept some of the weeds out of the garden of pathologic anatomy, it is true, but the average student is no longer keenly interested in the application of the still pregnant lessons of the dead-house as related to their clinical application. This is nowhere more apparent than in the study of cardiac and circulatory disease. It seems to me that a return to some of these methods may lead us now, particularly with our far advanced knowledge of cardiac physiology, to conclusions of greater clinical value in the prolongation of efficiency and the relief of distress in our cases of circulatory disease.

We have for a very long time stressed the importance of a study of etiology in most disease conditions, and it is obviously entirely unscientific to attempt the treatment of almost any lesion or symptom group without an adequate consideration of the etiology involved. Improbable as it seems, wrong as it is, this neglect of a so primary need has much manifested itself in the study of cardiac disease. There are few hospitals which require in their nomenclature for the classification of disease a definition of the probable etiology concerned in the classification of cardiac diseases. Many or most hospitals now presuppose the classification by electrocardiographic findings or by physiologic variations, but how rare it is that we find, even in our best hospital records, endocarditis, for example, classed as to its prob-



able etiology. Who finds in his hospital files such an entry, for example, as "Chronic mitral obstruction of choreic origin"? Yet, chorea is a readily recognized disease, its treatment, at least in so far as protection of the heart is concerned, admits of some benefit, if early recognized, and it produces in the heart a lesion which is more or less characteristic. Clinicians have universally felt this need. Allbutt and Mackenzie have notably expressed the viewpoint in many of their writings. Cabot, Libman, and others have frankly advocated a classification of the cardiac disorders or lesions in accordance with their probable etiology. Lewis, a physiologist by training, has recently expressed the same desire (Lewis, T., *British Med. Jour.*, Nov. 15, 1919, No. 3072, p. 621. *The Cardinal Principles in Cardiac Practice*). The idea has not, however, received general acceptance, at least to sufficient degree to make its use widespread. There are many reasons for this. Most of us who are engaged in practice upon adults receive our cases at a period of life when it is very difficult to recall the historical data often essential to a proper etiologic classification of the cardiac disorders. We see chiefly the end results at a time when for the greater part other pathology or symptomatology confuses the etiologic data which we most need in such a classification.

Does recognition of the primary etiology concerned in any cardiac case give us material help in its management? I believe that in most instances it does give material aid to the proper understanding of the basic pathology concerned and this in turn with the physical signs, electrocardiography, fluoroscopy and muscle tests, makes it often possible to visualize the probable pathology concerned and therefore to more intelligently direct treatment on a basis of the elemental lesions and their presumable etiology. Who, for example, would manage a case of acute myocardial degeneration probably caused by a diphtheria in the same manner as one presumably produced by an arteriosclerosis? Yet a differentiation of these conditions, except with a knowledge of the probable etiology, may be entirely impossible.

Treatment of cardiac disease purely from

a gross anatomic basis or from the evidences of disturbed physiology only is entirely inadequate for properly directed therapeutic purposes. This fact is perhaps no more brilliantly illustrated than in aortic valve lesions caused by syphilis and those caused by any other infection. In the one case it is now generally admitted that realization of the etiology may, and very often does, lead to a degree of relief which amounts practically to cure, while in the treatment of nonsyphilitic disease of the aortic segments very little is ever accomplished beyond that gained through conservation methods and their proper application. This is even more brilliantly and successfully demonstrated when a myocardial inflammation is recognized as due to syphilis and not to a rheumatic infection, a pneumonia, influenza or diphtheritic degeneration.

These facts have impressed me with increasing force throughout my recent medical life and I have found the application of an attempt at etiologic classification of circulatory cases has made it possible for me to devise a more clear cut and definite course of treatment in any case, based in each instance on a supposed elemental pathologic anatomy. As I have before intimated, however, this classification is extremely difficult in old cases, which comprise a very high percentage of those coming to the average clinician, but, as I have attempted to point out, an attempt at classification in every instance will certainly eliminate at least some possible factors and therefore clarify the therapeutic field to some extent. A presumable etiologic diagnosis can, in many instances, be made in even these long standing cases. Few patients are so defective mentally as not to recall the characteristic clinical picture of an acute rheumatic fever. Most mothers and many children recall vividly enough the occurrence of a chorea, with its very high rate of cardiac complications. The development of sclerotic changes in the heart muscle and valves, such as occur in the course of a chronic interstitial nephritis, is so characteristic, even anatomically, that recognition of the concerned etiology should rarely be at fault. Obviously, this recognition will largely influence the course of treatment.

Fortunately, the great interest now manifested in occult infections has led often to real clinical research in the attempt at recognition of the presumable point of entrance of an infection. As was pointed out very many years ago, notably by Ziegler, treatment of the point of entry of an infection, as by the removal of infected tonsils, is often followed by subsidence of the general infection or by improvement of its lesions. Treatment of an infected prostate or seminal vesicle, or removal of definitely infected teeth leads to improvement even independent of other measures, in many instances. This treatment or removal of the primary point of infection is of crucial importance in very many instances. It is seen, for example, in the myocardial degeneration so commonly associated with chronic gall-bladder infection. Removal of the gall-bladder or its successful medical treatment, will accomplish more for the involved heart than any other means of treatment at our command.

In very many cardiac problems the etiologic factor is also wide from the circulatory system, and it is only when a proper valuation is placed on these often widely distant etiologic factors that the key to essential cardiac treatment is disclosed. The association of myocardial deficiencies, at times of an actual morphologic myocardial degeneration, with myomas of the uterus is too frequent and too striking to admit of any question as to the etiologic dependency of the cardiac on the uterine lesion. We have as yet, at least in my mind, no adequate explanation of this well-attested clinical fact. These patients, as a rule, withstand the shock of anesthesia and operation far better than would be expected from the cardiac symptoms and probable lesion. The only treatment of any permanent character in these instances lies in removal of the lesion. Its presence must however be first detected and valued, for the sole treatment lies in its removal. Most of these cases, if not permitted to endure too long, when permanent changes appear in the heart muscle, respond in a very striking manner to correct treatment.

Vague as is our present comprehension of the endocrines in disease every clinician appreciates the often profound evidences of car-

diac damage in many forms of internal gland disturbance. Perhaps this is most strikingly illustrated in the relation of cardiac symptomatology, and pathology as well, in disturbances of the thyroid. We have of course a very simple and direct explanation of the heart symptomatology and ultimate pathology in hyperthyroidism, as it may all be explained on the basis of a chemical toxemia and on the ultimate effects of the tachycardia on heart muscle exhaustion and on the myocardial degenerations, usually of the brown atrophy type, that appear in this disease with eventual involvement of the entire vascular field and the ultimate exhaustion, dilatation and decompensation of the heart. Here, as so often is the case, the correct vascular treatment lies in recognition and removal of the etiologic factors. In subthyroidism, though very striking cardiac symptoms appear early, and have recently been especially considered by Farr, of Minnesota, and Cohn, of New York, we have thus far no such satisfactory explanation, but merely the clinical association to direct us. Again, correction of the cardiac inadequacy rests entirely on the treatment of its etiologic cause. Without this, the case becomes a hopeless problem, as all too many of the cardiac diseases still are; perhaps, in considerable part, because the newer cardiology has largely been developed and discussed by men whose special studies have tended to narrow their viewpoint, tended too much to focus their attention on the result rather than on the etiologic factors concerned.

Another factor must be more widely discussed and considered in connection with the reaction of the heart to certain infections. Why is it, for example, that the heart action is so definitely slowed, relative to the temperature, in typhoid fever, in influenza and in certain cases of mumps? It is true that this last question may again bring us sharply to the intriguing problem of the endocrines in their relation to heart symptomatology and pathology. It may well be that in mumps, at least, the slowing of the heart, seen at times in very extreme degree, is due to the proclivity of this infection to attack certain of the endo-



crines, notably the primary and secondary sexual glands.

The frequency with which profound circulatory symptoms appear at puberty, in the menopause, and associated with various other alterations in the pathology or physiology of the sexual glands, is well recognized. Tachycardia, bradycardia, and various arrhythmias develop with great frequency in many widely variant disturbances of the sexual glands. It must be always remembered that with the heart, physiologic or merely functional disturbance, if long continued, leads mechanically to muscle disease certainly, and probably also to disturbances of those vague and little understood nervous elements which underlie no doubt many of the cardiac disorders. I need but again mention the profound circulatory symptoms which appear under sexual repression or overstimulation and those which develop in the circulatory system in destructive and inflammatory disease of the sexual glands.

With the pituitary, every student of the condition has noted the perivascular fibrosis and the myocardial fibrosis which develop in acromegalia, possibly due to the profound chemical growth and nutritional disturbances of this disease, allied, as it seems to be, so closely with abnormalities of the problem of physiologic growth and development. Again our etiologic basis is widely distant from the circulatory system, and competent treatment can be determined only from a recognition of the basic etiology.

A very high proportion of the instances of chronic endocarditis and myocarditis with which we meet are those which have originated in the course of rheumatic fever. This is so frequent a cause of these lesions that one may almost assume that it is the cause of any old condition of these types which cannot be sufficiently explained on some other etiologic basis. The proportion of occurrence of endocarditis and myocarditis in the course of rheumatic fever is exceedingly high and it is the cause of our greatest apprehension in the course of any case of rheumatic fever. Try as we will, there seems to be no manner of preventing this high percentage of occurrence. It appears alike in violent and in mild cases of

the infection. Some of the most serious defects spring into being in cases of rheumatic fever so apparently mild as to escape diagnosis and in patients who may not be considered as sick enough to demand confinement to bed or hospitalization. It is a point exceedingly difficult of demonstration, and one which will without fail develop discussion, as to the influence which the salicylates produce in these cases. It is my opinion that a good many cases are definitely mitigated, in which the salicylates are pushed in the disease. I do not for a moment feel that use of the salicylates will prevent the complication, but I do feel that it lessens the extent of the defect and shortens its acute course. I also believe that the continuation of frequently changed forms of the salicylates during the period of convalescence apparently hastens the period of healing. So definitely is this fixed in my own mind that I advocate the use of the salicylates and iodides, alternately, in the convalescent periods of rheumatic fever in which a cardiac lesion has developed. Although it is a point impossible of demonstration, I believe, from clinical study, that the infiltrations and degenerations of the muscle which perhaps result in the formation of the Aschoff bodies are thus cleared away. Thus, I feel that, at least to some degree, full recognition of the etiology even in the numerous cases of rheumatic pancarditis may prove to be of assistance in correct management of the cases.

In acute cases of cardiac deficiency a thorough search for the etiologic factor will in many instances save the day. On one occasion some years ago I was called to the country to see a colleague who had apparently developed an acute myocarditis. He had been working extremely hard, had lost much sleep and had been very much disturbed emotionally through the final loss of much prized patients and friends. His brother, also a well-known practitioner, and his immediate colleagues had been unable to furnish any explanation for his sudden cardiac failure on any other basis than that of mere exhaustion. He presented a very typical picture of extreme myocardial disease; he was edematous, the heart tones and the pulse were of extremely poor quality, and a

very marked arrhythmia was present. He was at times unconscious, was very cyanotic and a pulmonary edema threatened. There had been no adequate response to digitalis, or to any other manner of treatment. In the course of our examination, we discovered over the tonsils a thin, suspicious looking exudate. The gravity of the condition was so apparent, and all other measures had proved so futile, that we decided to give him a dose of 30,000 units of diphtheria antitoxin at once. Examination of his call book showed on investigation by his wife that he had been in close attendance on a fatal case of diphtheria. His own condition was now so serious that he could contribute nothing in the way of history. Improvement in the action of the heart was apparent within 3 hours. I placed the inoculated serum tube in my shirt pocket, and when I arrived home took the tube to bed with me, as it was too late to take it to my incubator at the laboratory. The next morning I was able to report a pure culture of the diphtheria bacillus and to urge the administration of additional doses of antitoxin. Our patient made a slow but uneventful recovery, and in the course of 4 months was able to resume his practice. He has shown no subsequent cardiac defect, though several times during his convalescence the heart seemed about to decompensate. It is very apparent, in this instance, that any other treatment than one directed at the providentially discovered etiologic factor would have been without avail. I have seen other cases, also, in which the administration of antitoxin in diphtheria cleared up grave cardiac symptoms but I have observed no other instance in which the almost chance discovery where no diphtheria was suspected was followed by a so dramatic recovery. Concerning this particular subject, C. Schwensen, in a recent study of the heart rhythm in diphtheria, based on a careful analysis of 568 cases, concludes that "Diphtheria must therefore be considered as an important cause of heart failure in life." (*Schwensen, C., The Heart Rhythm in Diphtheria, J. Infec. Dis., 30:279, March, 1922.*)

There is no other so brilliant result shown in cardiac therapeutics as that often obtained

in instances of cardiac lues, if the case is placed under treatment before permanent destruction of vital tissues has taken place. Even in late cases of cardiac involvement, the clinical results often obtained in infections of many years standing is so evident and striking that I have come to consider cardiac syphilis as probably the most favorable example, of any of the cardiopathies, for treatment directed to the etiologic factor. These cases are almost unaffected by the usual methods of cardiac management alone. They show, as a rule, little or no response to the digitalis group of drugs and practically all of them go on to complete economic disability or death unless the etiologic factor is recognized and treated.

In many cases of angina pectoris, treatment of the etiologic factor meets with a response of very striking and satisfactory character. An instance which I had the privilege of seeing well illustrates this point. A man who suffered severely from gout had developed very persistent, severe and frequent attacks of angina pectoris quite typical in symptomatology and signs. Relief had been effected only through large doses of morphin, for the nitrites had by this time ceased to ease or abort the paroxysms. We decided to push anti-gout treatment and relief was obtained within 24 hours after colchicin and atophan had been administered. The patient who had been bed-ridden for some weeks was eventually able to get up and to return to his business. No recurrence either of his gout or of his angina were reported 2 years later, for meantime the patient had religiously followed up his anti-gout régime. Other cases have given similar results, but in none did such prompt benefit occur as in the instance just cited. Very frequently angina pectoris caused by syphilis is promptly, and in a good many instances apparently permanently, cured by vigorous specific medication.

One of the very frequent forms of circulatory defect seen in adults by the active clinician, is heart failure in men who during their youth, especially during their college years, overdid athletics. The status of the athletic heart is fully recognized by practitioners. As a general thing, the hypertrophy which devel-



ops during a youth of great physical activity begins to deteriorate and undergo degenerations of one sort or another when athletic activities of college days are replaced by the onerous demands of time, in the young and ambitious business and professional man. His position does not ordinarily permit time for the adequate continuance of accustomed physical activity to which the heart had adapted itself during the college years. As prosperity and increased business, social or professional responsibilities augment with the years, there is too great a tendency, especially among Americans, to neglect even adequate exercise, to eat too much and too unwisely; adequate sleep and rest are not permitted, and our former athlete becomes obese and sedentary. Degeneration of the heart muscle, abnormal in bulk in these ex-athletes, takes place much more rapidly than in those who have never developed the athletic hypertrophy, so that in the end the busy professional and business man who has once lived an active physical life, is from the cardiac standpoint worse, far worse, than the man who has never been an athlete but who has throughout his entire life indulged in only minor physical activities. Much of this can be prevented by a full appreciation of the etiologic factor and by persistent, though modified exercise. Proper adjustment of diet to the needs of the readjusted life must be insisted upon, though the appetite and qualitative food desire often remain those of the active young college man. Excessive abuse of tobacco and in recent years of alcohol of the bad character now only available, doubtless adds much to these degenerative processes. Correct appreciation of the etiology of these changes points directly to a line of preventive, even of reconstructive, cardiac treatment which is eminently successful in very many instances.

Certain other forms of myocardial degeneration develop also as a result of prolonged over action of nonathletic nature. Such, one sees in instances of prolonged great emotional stress, in subjects of neurocirculatory asthenia, and in those persons whose occupation demands nervous strain, as musicians, actors and the like. As a rule these hearts are small,

rarely do they develop into a grossly hypertrophied or dilated organ, but they give way eventually, usually showing at postmortem a brown atrophy, a parenchymatous degeneration or fibrosis. Such hearts are also frequently seen in hyperthyroidism in its later phases, and in its more chronic types, as compared to the sudden violent forms of toxic thyrosis. Rarely in these instances does one find real inflammatory changes present in the heart muscle but rather atrophic alterations of a degenerative character.

The lesson to be learned from this last large group of cases is the importance of rest. In each individual case the form of rest must be especially adapted to the special needs of that individual. In some passive exercise or even more active physical occupation may dispel the nervous drive which causes over action of the heart and eventual muscle exhaustion. Such is the condition in neurocirculatory asthenia in which particularly beneficial results follow the institution of graded physical exercise. In many of the milder forms of hyperthyroidism, in which the symptomatology appears to have been precipitated by the need of the tissues for iodine, especially in developing youths and those who live in goiterous districts, cure of the entire picture follows not from use of the digitalis group of drugs, but from the administration of small doses of iodine. The etiology, not the symptomology must receive treatment.

Very closely associated with this group of cardiopathies are those in which elevations of blood pressure throw unwonted stress on the heart. In some of these instances the elevation of pressure may be due to renal lesions of greater or lesser grade. In many others, the elevation in pressure seems to be more correctly attributed to those frequent forms of pressure elevation which eventuate from the stresses of life or from other factors which are not yet apparent to us. They are very frequent, especially in the highly emotional individual and the condition is capable of real and progressive benefit once the cause has been recognized and correction instituted.

Paul White and his associates have recently drawn particular attention to the occurrence

of cardiac disease as a result of long standing nephritic disease. Special stress has been generally laid in this group of cases, by most authors, on the importance of increased blood pressure. This is not, however, invariably present, for many cases of nephritis show no increase in blood pressure; perhaps only those showing a glomerular change, though this is also not invariable. More consideration must be given to the degeneration which develops in the myocardium, probably in part as a result of retained nitrogenous bodies in the blood and lymph. Doubtless many entirely unidentified toxins play also an important rôle in this drama. There can be no doubt, as every clinician realizes, but that full appreciation of the probable rôle of the nephritic defect in the production of this type of cardiac disease must be followed by general and medicinal measures designed to correct it and to thus relieve the basic cause of the problem.

One of the most discouraging forms of cardiac disease develops in instances of arteriosclerosis, using this term in its broadest meaning. Under such an etiologic heading must be also included instances of aortitis, in which the important elasticity of the aorta is much reduced and those instances in which narrowing of the coronary vessels is followed by a defective nourishment of the heart muscle, as well as those cases in which chronic progressive valvular sclerosis appears to be dependent on a generalized arterial disease.

As a rule, this very frequent type of cardiac disease is considered as an evidence of senility, either premature or normal, and is associated almost without exception with degenerative changes in the other kinetic viscera of the body. Degeneration appears in the general muscle tissues, including the myocardium, in the active secreting glands, including the endocrine, and in the nerve ganglia and ganglion cells. This is the most discouraging type of cardiac disease from a therapeutic standpoint because the remote etiologic factor has usually long since faded from the picture leaving only its permanently progressive brand. It is true that if this tendency toward arteriosclerotic changes has been suspected early the progress may perhaps be

somewhat slowed by close attention to diet, to rest, adequate but never exhaustive exercise, to carefully regulated excretion and the like. Much may be accomplished in a few individual instances but the process is a progressive one from the very nature of its etiology.

The obese heart is still another form of cardiopathy in which close attention to etiology may result in definite therapeutic benefit. In these cases one must primarily make a distinction between those manifestations of obesity due to endocrine dysfunction, (such as we see, for example, in obesity of the pituitary type), that seen in hypothyroidism and the like, and that due to over alimentation.

It is also difficult for some of us to admit that there are those instances, not proven endocrine in origin, in which the intake of a surprisingly low food value leads none the less to an abnormal storing of fat. In some instances, no doubt, this is due to insufficient combustion. Fat acts in a deleterious way on the heart muscle by infiltration of the myocardium or by over storing of the old globules in the normal interstitium; this we may speak of as a fatty infiltration. Fatty destruction of the heart muscle cells is a quite different process and it is commonly associated with some toxic destructive lesion of the muscle cell primarily. In the management of these hearts it is manifestly important that a sharp distinction be made between the two essential types. In each instance the basic fault must be detected, if possible, and then corrected.

The purpose of this very discursive paper has been to point out the absolute need of an adequate consideration of the etiology in the study of any cardiac case. Associated directly with this is necessarily a correct appraisal of the pathologic changes probably present. There has been of late too much neglect of the study of pathologic anatomy, particularly in relation to the circulatory diseases, and yet it seems perfectly obvious that an adequate scientific treatment can be based only on such a foundation. Too much attention has been directed toward a merely symptomatic study of the cardiac disorders. As a result, the studies are supposedly based on a presumptive dis-



turbance of the cardiac physiology and have not entirely furnished the secure foundation for intelligent treatment which a complete study of etiology and pathologic anatomy ordinarily provides.

I would in no way detract from the benefit which we have derived from our newer methods of cardiac study, but I would add them as only subsidiary, at least from the standpoint of treatment, to the more essential consideration of etiology and anatomic pathology. It is a great help to any clinician to visualize to himself as he dictates his outline of treatment, the precise condition probably present in the tissues which he is treating. It is always well for the practitioner to appreciate that the heart is but merely a part of the body at large, and that basic causes are often wide from that organ which may produce the most striking symptoms. For most of us, such a visualization is best realized when we attempt to classify the disorder from its presumable etiologic basis. Only then is logical treatment definitely applied.

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## CONTROLLABLE SPINAL ANESTHESIA

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Since the time of Hippocrates there has been and exists an unwritten or implied law between the patient and the physician or surgeon, and it is thoroughly impressed upon the minds of both, that it is the duty of the professional attendant to avail himself of every possible means within mortal power to preserve the life of the patient. Invariably and in every case where the professional attendant is in the slightest doubt as to his diagnosis or method of treatment he calls others in consultation and avails himself of all laboratory facilities. If he is conscientious, and feels that his professional skill is wanting in any

particular line, he considers a specialist or refers the case to one more experienced in that particular branch of the profession. The laryngologist would not attempt an hysterectomy, a gynecologist could not be expected to do a cataract extraction, nor a pathologist an appendectomy. They consider what is best for the patient and act accordingly, but does the profession, particularly the surgical profession, act in the same manner regarding anesthesia? Probably not, and I think we are safe in saying that generally there is little if any consideration given by the surgeon to the anesthetic to be administered; not infrequently it is left in the hands of the anesthetist and his judgment, and results are in a direct ratio to the experience and ability of the latter; sometimes it is left to the decision of a nurse anesthetist. To prevent this, some states have been compelled to pass laws to preserve the lives of citizens that might otherwise be sent to oblivion by inexperience. The anesthetist, to be proficient, should not only be able to administer inhalation anesthesia, ether and nitrous-oxide, but he should be the master of technic in every form of inhalation, local and spinal anesthesia; and only with these qualifications can an anesthetist be considered proficient. To administer inhalation anesthesia to patients suffering with eclampsia or pernicious vomiting, diabetes, nephritis, drug addictions, alcoholism, decompensated hearts, hypertension, arteriosclerosis, bronchitis, pleurisy, pharyngeal or tracheal obstructions, anemias, primary, secondary or pernicious, general peritonitis, strangulated hernia, intussusception, volvulus, localized or pelvic peritonitis, shock, emaciation or obesity, one is not adhering to the implied law, but is, in fact, doing harm to the patient and contributing to the hospital's mortality list. All of the above class of cases do exceedingly well with regional or spinal anesthesia. One must consider carefully the mortality of inhalation anesthesia, for most reports on inhalation anesthesia are next to worthless. For the greater part, these reports come from the best specialists of inhalation anesthesia and the largest clinics, direct from the operating table and without consideration of the secondary mor-

tality; the smaller hospital and less experienced anesthetist's results are never recorded; and, therefore, there is no record of the mortality in those fields where the greatest mor-

many surgeons can truthfully say that they have had 100 successive cases without some of the postoperative complications of inhalation anesthesia, such as postoperative shock,

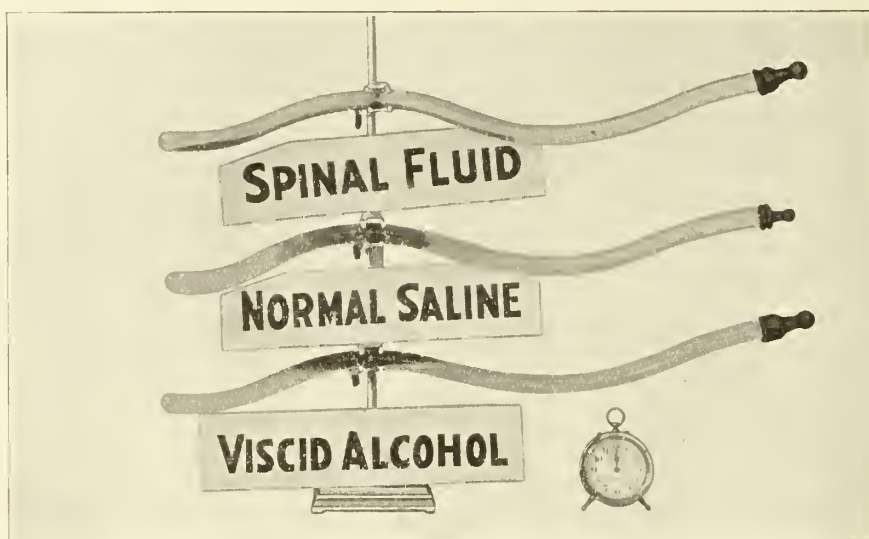


Fig. 1.—Solutions of spinal fluid, normal saline and viscid alcohol injected into glass spines containing an isotonic spinal fluid.

tality really exists. The real mortality of inhalation anesthesia is not from the operating table, but is secondary, from one hour to one

pneumonia, bronchitis, distention, ileus, acute dilatation of the stomach, acidosis, lung abscess, albuminuria or suppression.

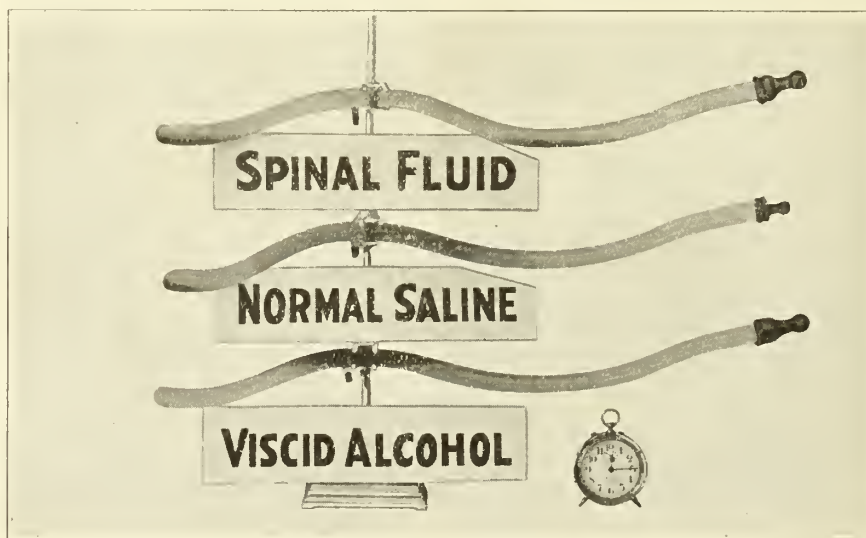


Fig. 2.—Fifteen minutes after injection. Note dissemination of spinal fluid and normal saline solutions. Viscid alcohol retained en-masse.

week following induction. The secondary mortality is 95% of the whole as compared with a meagre 5% of primary mortality. How

The primary mortality of regional or spinal anesthesia is no greater, and is probably less than that of inhalation anesthesia; secondary



mortality, as it is administered at the present time, is nil. For these reasons, spinal anesthesia or regional anesthesia, should be the anesthesia of preference, and if I were to prophesy I would say that inhalation anesthesia in general will be in a class with chloroform 10 years hence and spinal or regional will be the anesthesia of choice.

There seems to be some fear of spinal anesthesia among the members of the surgical profession who are unfamiliar with its use, while its adherents have an even greater dread of inhalation anesthesia. There is a third class of

mitting the solution injected to extend high in the spinal canal. This may be prevented by using drugs that do not act severely upon the vasomotors, novocain or procain; by preventing dissemination within the spinal canal; by confining the anesthetic to the lower spinal canal; by stimulating the vasomotor constrictors with strychnin within the canal and by ephedrin in the tissues.

"Does it not have a great effect upon the respiratory and heart centers?"

Not unless it reaches high in the spinal canal. It never affects respiration nor the

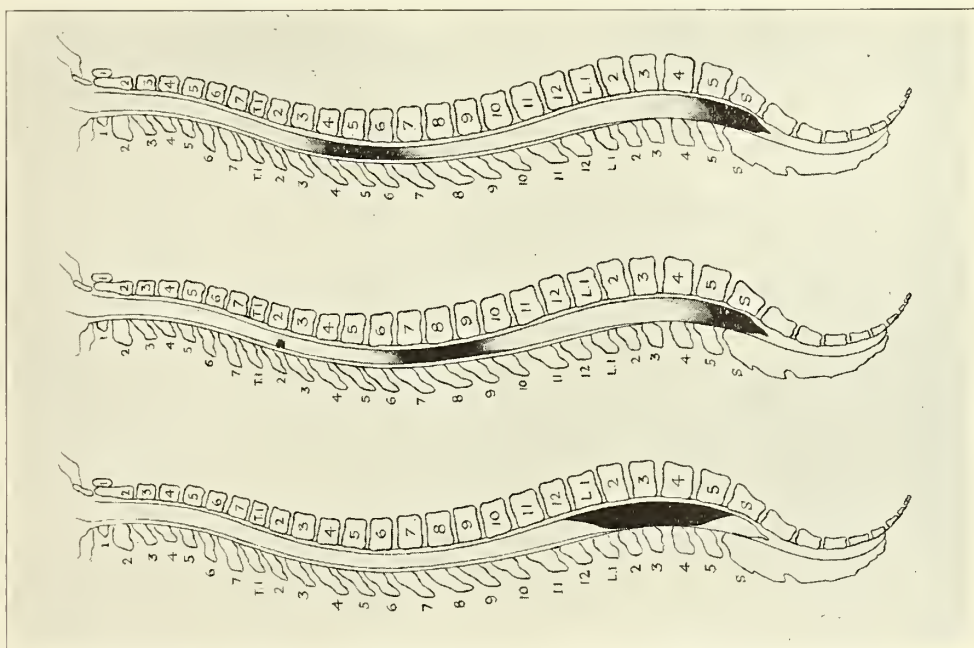


Fig. 3.—Results found by making post anesthetic taps from twenty to thirty minutes after injection. Top, spinal fluid as a vehicle; center, normal saline; lower, viscid alcohol.

surgeons who see its many advantages and are endeavoring to take advantage of them. No one can realize this better than the author, whose opinion is formed from numerous letters and inquiries. From inquiries in these letters, personal remarks and questions, I have selected the most important and will answer them as far as possible.

"I am afraid of the great drop in blood pressure; except for that I believe it to be an ideal form of anesthesia."

The drop in blood pressure is produced by using improper anesthetic drugs and by per-

heart if confined below the sixth or seventh dorsal vertebrae.

"Don't you often get paralysis following its uses?"

Paralysis is a legend of the early days of its use. When large needles, 15 or 16 gauge were used, severing or traumatizing fibers of the cord, or producing localized intradural hematoma.

"How can you prevent the upward extension?"

By placing the patient in a slight Trendelenburg position; using alcohol to give the solu-

tion a lighter specific gravity than the spinal fluid; using a viscid substance to prevent mixing with the spinal fluid; selecting the proper site of injection, and not allowing an excess of spinal fluid to escape.

"How large an amount of drug may be use?"

Ordinarily 2 to 3 grains of procain. Innumerable times the second injection has been

fine 22 gauge lumbar puncture needle, made of nickeloid or rustless steel, the point of which is ground off to a taper of  $45^{\circ}$ . A small needle will not injure the cauda equina nor produce intradural hemorrhage. The blunt point cuts a miniature trap door in the dura which closes tightly when the needle is withdrawn and prevents seepage of the spinal fluid. It is essential that the needle fit the

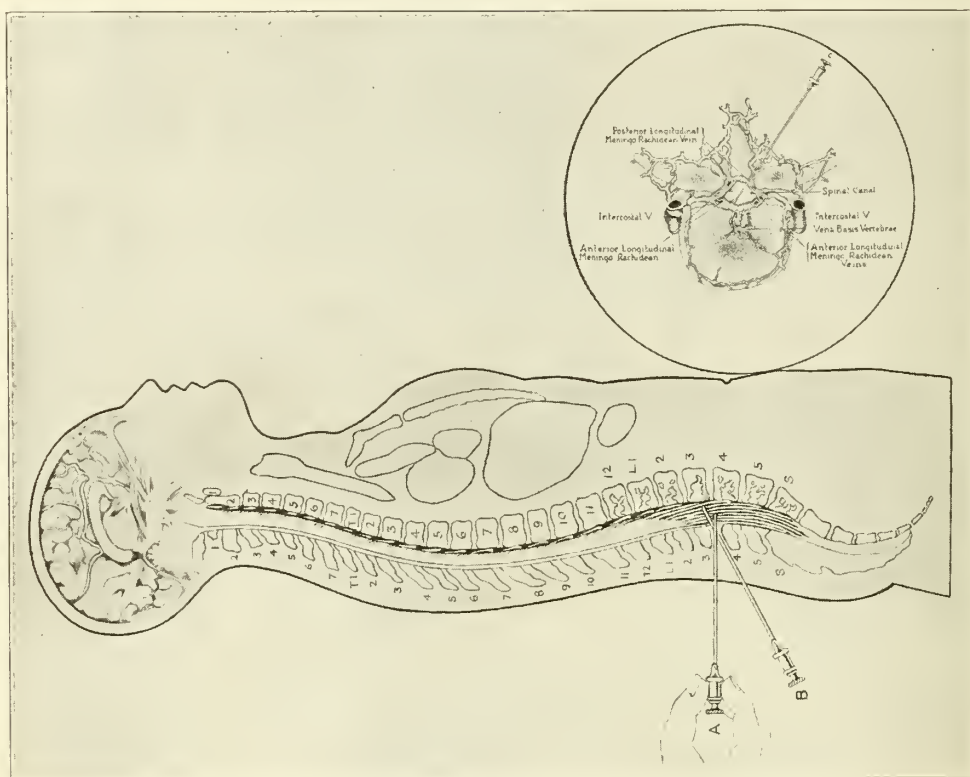


Fig. 4.—A. Proper method of inserting puncture needle. B & C. Improper method. Note extent of venous supply about the cord.

necessary, or, 6 grains of procain used with no unpleasant effects.

"Where do you inject it?"

Through the interspinous ligament. If the needle is inserted between the lamina bleeding may occur. For perineal work and lower extremities, insert in a third or fourth lumbar interspace. For appendectomies and hernias, the second or third interspace. Stomach or gall-bladder, the twelfth dorsal or the first lumbar interspace.

"How do you inject it?"

With a 2 c.c. Luer lock syringe and a very

syringe accurately so that there will be absolutely no waste of solution or the possibility of injection of air. The syringes shown in the cuts are the only ones which have proved absolutely reliable and trustworthy.

"What causes the pallor and vomiting?"

It does not occur with a proper technic. The pallor is caused by extreme drop in blood pressure due to effect of the drug upon the vasomotor system, and high extension within the spinal canal. Vomiting is caused by cerebral anemia due to high extension and drop in blood pressure.



"Is it safe to use it above the umbilicus?"

It may be used anywhere below the costal margin with safety.

"Why does it fail to work at times?"

The drug may be decomposed from exposure or stale from age if not preserved in hermetically sealed tubes or ampules. Rapid dissemination with the spinal fluid may produce a solution too weak to be effectual. An

fluid; extension of the anesthesia high within the spinal canal; the use of butyn or apothestin.

With an endeavor to solve these questions, a series of tests were conducted to ascertain the physiology and physiologic action of the various drugs and to attempt to place this anesthesia under control of the operator, to prevent uncertainty as to the parts involved, to stabilize the intensity and regulate the time

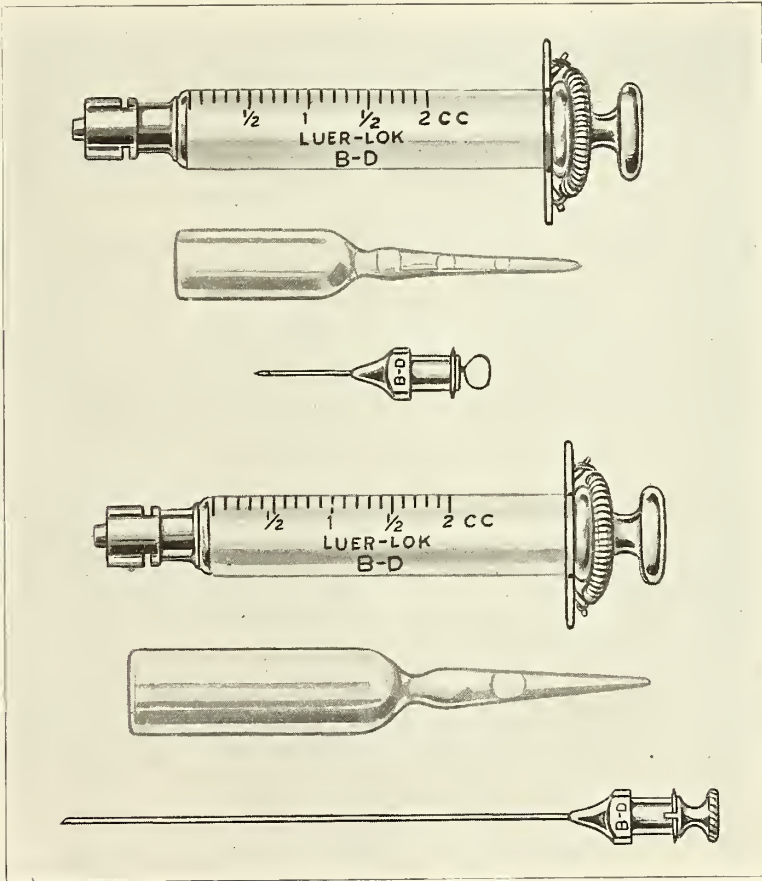


Fig. 5.—Equipment for spinal anesthesia; 2 Luer lock syringes; 1 ampule for local anesthesia; 1 ampule of spinal anesthesia; 1 hypo. needle; 1 spinal puncture needle.

incomplete mixing with the spinal fluid may cause delay or no anesthesia. Failure to enter the spinal canal or leakage about a long tapered needle will cause incomplete anesthesia. Seepage from the use of a large needle may produce an incomplete anesthesia.

"What causes the postoperative headaches?"

They should not occur and if they do it is due to you and not the anesthetic. It may be due to: the use of large needles; postanesthetic seepage; withdrawal of too much spinal

of anesthesia, to diminish the tremendous drop of blood pressure, to minimize nausea and vomiting, to abolish the cold sweats and anxiety of the patient, and to eliminate systemic disturbances.

To gain control, a vehicle that would not mix with the spinal fluid until the anesthetic had been absorbed had to be devised of a lighter specific gravity than a spinal fluid which would allow anesthesia to be produced higher or lower on the body surface as the

operator desired; a substance that would float on the spinal fluid not unlike the air bubble on a spirit level. (See Figs. 1 and 2). Several attempts and failures were encountered. The viscosity could be obtained but absorbability would be wholly or partially inhibited, and finally a starched paste was found to produce a viscid solution and not inhibit absorption of the anesthetic. To ascertain the intradural action of this solution as compared with sterile

tion the colored solutions had assumed. The extent and amount of dissemination was determined by the use of a colorimeter.

Viscid alcohol solution withdrawn from third lumbar interspace 22 minutes after injection has a colorimeter reading 65; withdrawn from the seventh dorsal interspace 24 minutes after injection shows no methylene-blue. Normal saline solution withdrawn 20 minutes after injection at the third lumbar



Fig. 6.—Skin infiltration.

water, normal saline or spinal fluid as a *vehicle*, methylene-blue was added to the respective solutions which were injected into glass tubes shaped to conform with the human spine and filled with an isotonic solution. The extent and rapidity of dissemination of the solutions were observed and timed. This was further checked by the use of miniature glass tubes filled with spinal fluid, the results of dissemination being practically the same. As a final check, methylene-blue was added to the various anesthetic solutions and injected into the spinal canal, and post anesthetic taps were made at various times to ascertain the posi-

interspace shows a colorimeter reading of 14; withdrawn 22 minutes after injection at the seventh dorsal interspace has a colorimeter reading of 18. Spinal fluid solution withdrawn 24 minutes after injection at the third lumbar interspace has a colorimeter reading of 16; withdrawn from the seventh dorsal interspace 25 minutes after injection has a colorimeter reading of 14.

There is also a question as to whether the anesthetic was absorbed by the nerves or by the veins, and as methylene-blue from the solution does not appear in the urine for an average of 47 minutes after injection, and the



withdrawn spinal fluid loses its anesthetic properties from 30 to 35 minutes after injection, it is reasonable to believe that it is absorbed by the nerves primarily. For example, a 6% solution withdrawn 20 minutes after injection has anesthetic properties not quite equal to a 1% solution; the colorimeter reading of the withdrawn solution being 65. Thirty minutes after injection there is only a per-

which contributes to a very slow osmotic process.

Determination of the intraspinal pressure by aid of the spinal manometer is of course comparatively easy, but to determine the intravenous pressure with the patient in a reclining position, and in the immediate neighborhood of the spinal puncture, was extremely difficult and these readings could only be taken as we

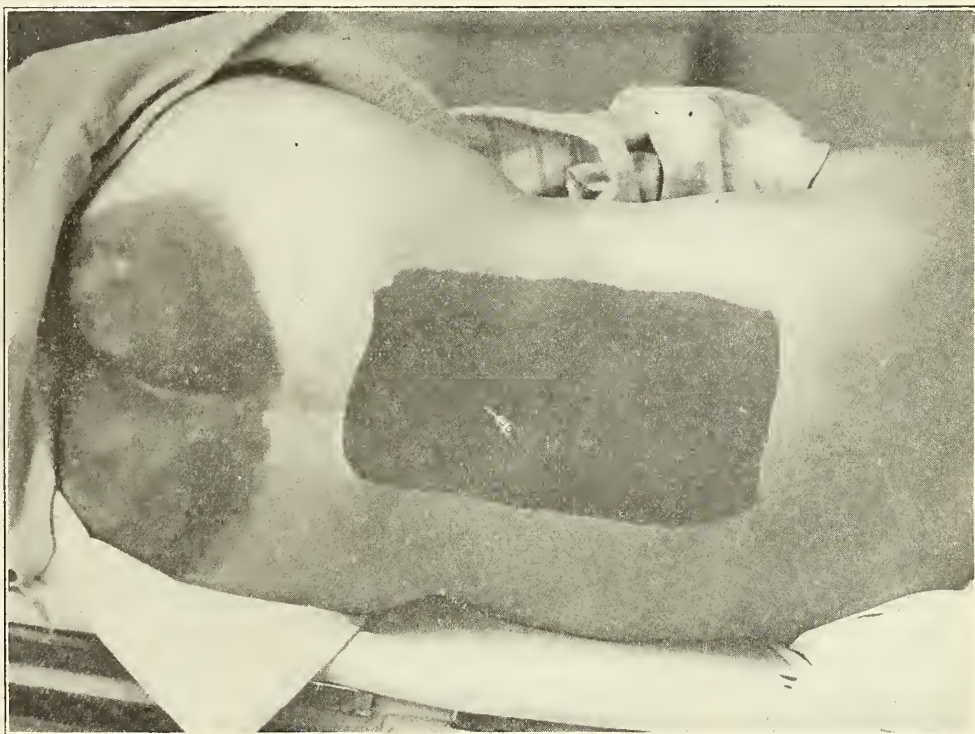


Fig. 7.—Spinal puncture needle in place. Note position of patient and tilt of table.

ceptible anesthetic property remaining, the colorimeter reading being 48 plus; 35 minutes after injection there are no anesthetic properties; novocain being used with these tests. The anesthetic strength was determined by raising subcutaneous wheals on the forearm with the withdrawn solution, besides injection of a solution of known strength. The low systemic absorption may be explained by the equality of the intraspinal pressure with that of the intravenous pressure by the use of a mercury or water manometer, the intraspinal pressure averaging 7 to 8 mm. of mercury and the intravenous pressure 3 to 4 mm.,

accidentally punctured a vein of the intraspinal plexus while doing a spinal puncture. These readings were taken on 14 cases and all were between 3 and 4 mg. mercury. It may be interesting to observe these figures carefully, and as the interspinal pressure is greater than the intervenous pressure it is doubtful if bleeding really occurs into the canal, but it is more probable there would be a seepage of spinal fluid into the vein. After accidentally puncturing a vein I have made secondary taps the following day and was unable to obtain blood in the spinal fluid in an appreciable amount. I do not believe that intradural hem-

orrhages occur after the veins have accidentally been punctured, unless large calibre needles are used.

The results obtained by injecting cardiac and vasomotor stimulating drugs before and during anesthesia intramuscularly, intravenously and intradurally, eliminated all but strychnin, ephedrin and adrenalin as having any immediate and direct action upon the vaso-

Strychnin sulphate	Gm. 0.0022
Novocain	0.195
Starch paste	0.13
Alcohol	0.324
Normal saline, q.s.	2.

This has been used in the last 600 inductions, during which time it has not been necessary to administer any stimulant during or after the operation. The solution is absolutely con-

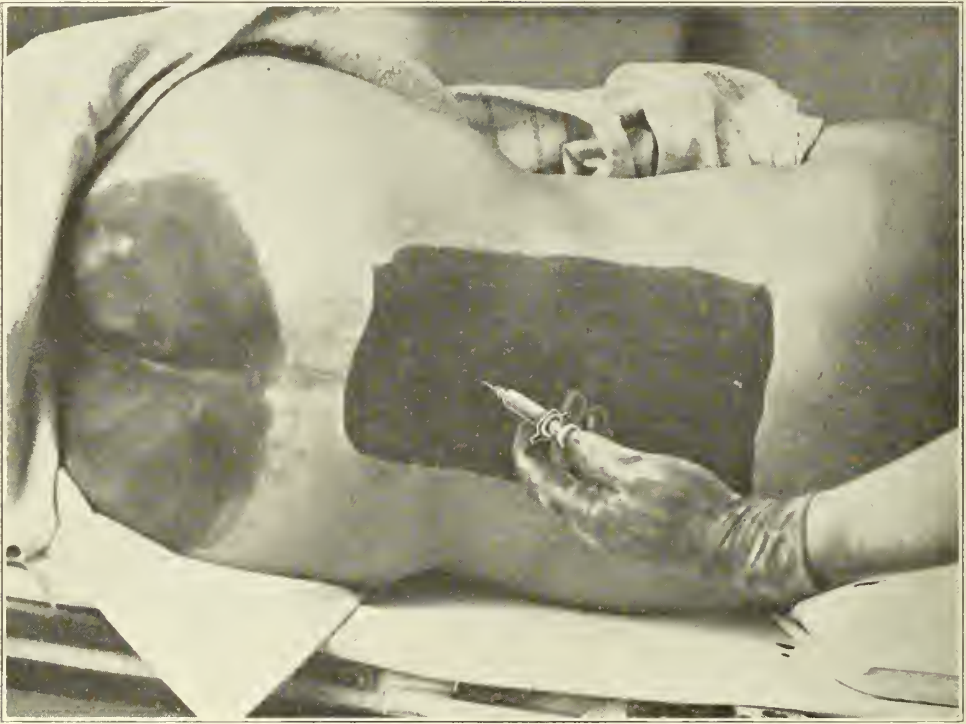


Fig. 8.—Injecting viscid alcohol solution. Note slant of table.

motors and as an aid in maintaining a normal blood pressure. The blood pressure, nausea, vomiting and sweating was found to be in direct ratio to the intensity and number of vasomotors involved. There is frequently a temporary and marked drop in blood pressure due to nausea or vomiting, which should not be misunderstood or confounded with the drop in blood pressure caused by intensity of the anesthesia or high involvement into the spine. Tests with all the known vehicles and nearly all the drugs employed in spinal anesthesia resulted in this formula:

trollable as to upward extent of anesthesia, by regulation of posture of the patient or the degree of Trendelenburg position. The vehicle does not disseminate with the spinal fluid for 30 to 40 minutes after injection, which assures a reliable and certain anesthesia lasting for a definite time in proportion to the amount injected; 1.324 c.c. will give satisfactory anesthesia from 30 to 45 minutes; 1.65 c.c. from 45 to 75 minutes; 2 c.c. will carry the patient up to 2 hours. Satisfactory and complete anesthesia occurs in 98% of cases. The



action is slightly retarded, 2 to 4 min. because of tenaciousness of the solution.

Strychnin acts as a direct stimulant to the vasomotors. It inhibits action of the anesthetized and stimulates the unaffected nerves. The alcohol produces a light specific gravity, allowing the solution to float on the spinal fluid. The starch paste prevents dilution by dissemination. It is nonirritable, inert and en-

in this to give a 1% solution of procain. This is placed in small ampules containing 1.324 c.c. of the solution to be used for local infiltration at the site of puncture; 1.324 c.c. of 3% ephedrin will overcome any action procain may have upon the vasomotor constrictors and will absolutely maintain the blood pressure without the slightest tendency to a drop.

Spinal fluid, normal saline or sterile water

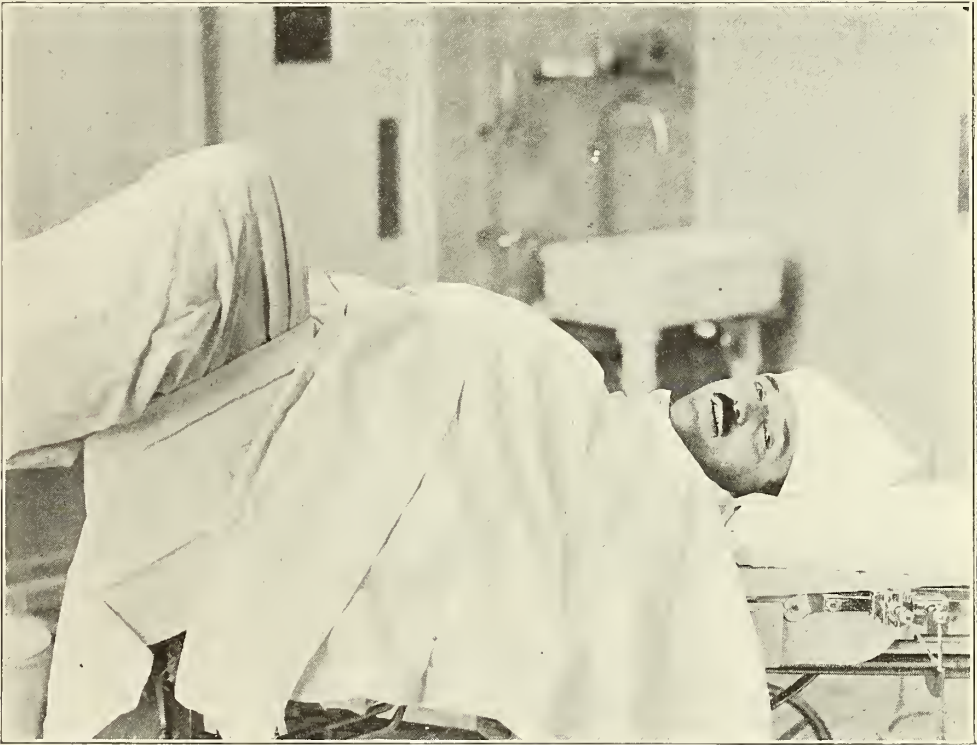


Fig. 9.—Immediately following a radical anal fistula.

tirely absorbable. Operations upon lower extremities or perineum have been performed without any drop in blood pressure, and on the abdomen below the umbilicus with not more than a 10 point drop. Upper abdominal cases can be carried through with not more than a 20 to 40 point drop. By maintaining a lateral curvature of the spine, resections of the ninth and tenth ribs, kidney work, and subphrenic abscess incisions have been performed without any alarming symptoms. Recently I have used ephedrin with excellent results. It is now our custom to use a 3% ephedrin solution and dissolve enough procain

used as a vehicle quickly, and almost immediately mix with the spinal fluid, and cause a great reduction in strength of the anesthetic, giving a great diversity of results, no anesthesia, partial anesthesia, or incomplete anesthesia. The time and intensity of the anesthesia is always uncertain because of dissemination. The upward extent of the anesthesia cannot be controlled, and as it is of about the same specific gravity or slightly heavier than the spinal fluid, when mixed with the spinal fluid the position of the patient has little bearing on its regulation. It often extends to the nipple line and even to the axilla, when anesthesia

is only desired in the lower abdomen or perineum. The greater the intensity or number of vasomotors involved, the greater the drop in blood pressure. With this method, the blood pressure at the wrist has often been found to be nothing over zero. The addition of alcohol to normal saline produces a solution of a light specific gravity and one that is controllable only for a short space of time.

use. Tropococain, which is one-half as toxic as cocain, produces anesthesia not unlike stovain, with perhaps a slightly lessened action on the vasomotors. Apothesin gives a perfect anesthesia and complete relaxation; tactile sensation is not constantly impaired. Primarily, there is very little vasomotor disturbance. Its absorbability is slow or retarded. Secondarily, or 1 or 2 hours after injection,

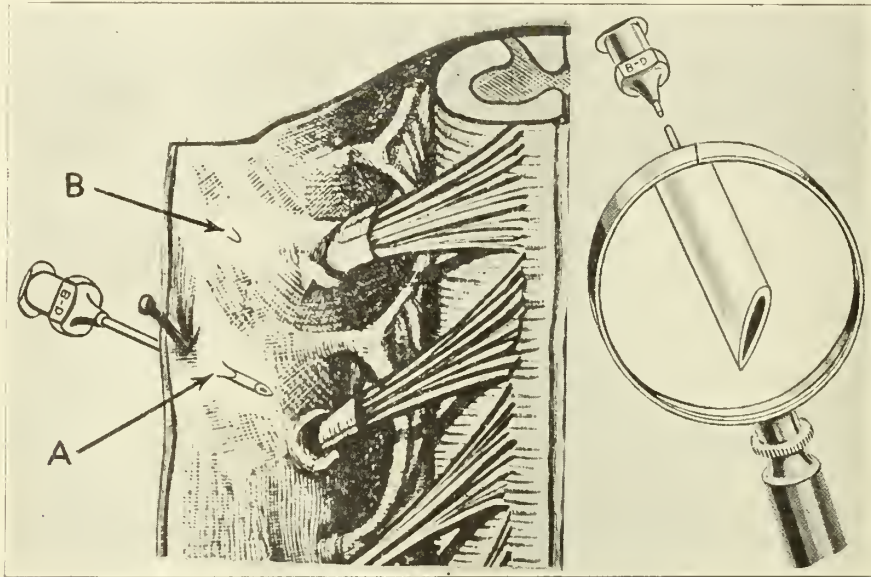


Fig. 10.—Author's spinal puncture needle 22 gauge; note point. A. Needle cutting trap doors in dura. B. Dural puncture wound closed.

Due to the attraction of alcohol for water this solution will not retain its light specific gravity and consistency for more than 6 to 8 minutes after injection, when it will disseminate with the spinal fluid as readily as if the alcohol had not been added. The physiologic action of the drugs used in spinal anesthesia varies greatly. Stovain, which is one-third as toxic as cocain, produces the most intense anesthesia; a complete and absolute transitory paralysis of not only the sensory nerves, but also the motor nerves, tactile, thermal sensation, sphincter and vasomotors. It may, if not acidified, produce complete anesthesia. It is readily absorbed. As the anesthetic is subsiding it often produces severe pains in the lower limbs. Headaches lasting from a few hours to several days occasionally follow its

it produces a severe vasomotor disturbance. Cases have been observed without more than a 10 or 15 point drop in blood pressure 40 minutes after injection, and 2 hours after injection the pressure had dropped to zero. This secondary action does not occur with any other drug but butyn. At times it is impossible to raise the patient's head for 24 hours after administration. Apothesin and butyn are too dangerous to use and we have abandoned them for this reason.

Procain or novocain is only one-eighth as toxic as cocain. It gives a complete anesthesia of the sensory nerves, satisfactory relaxation, and only slightly affects tactile and muscular sense. It affects the vasomotors less than any other drug used. Thermal sensation disappears with all drugs. Occasionally the





and head to be filled by gravity, and overcomes the cerebral anemia.

With the viscid alcohol solution the technic of administration must be varied from that used in other methods. The patient should lie upon the table, preferably on the right side with knees flexed upon the abdomen, head bent forward and the back bowed out. The skin should be painted over a wide margin, from the eighth dorsal to the sacrum, the hair having been removed from the patient's back at the time of surgical preparation in the ward. By palpating along the spinous processes between the twelfth dorsal and fifth lumbar a wider interspace may be found and this is selected for the site of injection. With this solution it does not matter whether the injection is made high or low, as the upward extent of the anesthetic is regulated almost entirely by tilt of the table. If it is desired to retain the anesthesia in the lower extremities or the perineum, a Trendelenburg position from  $20^{\circ}$  to  $25^{\circ}$  is assumed; a  $10^{\circ}$  to  $15^{\circ}$  Trendelenburg will keep the anesthesia below the umbilicus; a flat table or a  $5^{\circ}$  Trendelenburg will permit anesthesia to extend to the costal margin. After the site between the interspinous processes has been selected, pressure with a thumb nail through the gloved hand will leave a mark on the skin which renders it easy to find. Then, a very fine hypodermic needle, 27 gauge, about 1 in. in length should be inserted one-third of an inch below the mark on the skin, and about 0.5 c.c. of a 1% solution of novocain with ephedrin deposited under the skin. The needle, without withdrawing, is carried into the interspinous ligament its full length and the other 0.5 c.c. of solution is deposited into the interspinous ligament as the needle is slowly withdrawn. A very fine lumbar puncture needle, either nickel or nickeloid, preferably not larger than a No. 22 gauge with the point ground off to an angle of  $45^{\circ}$  is used. This point will cut a flap in the dura that closes like a trap door when the needle is withdrawn, and prevents leaking. The needle should always be very sharp, to prevent trauma or tearing of the tissues. It is important that the needle

be inserted through the interspinous ligament at a right angle to the long axis of the spine and be careful not to divert to right or left. When the dura is punctured there is a slight snap and a sensation of lack of resistance (which is recognized after the first few punctures) that leads one to believe that the canal has been entered. If the puncture is made at an acute angle (See needle B Fig. 4) there is danger of puncturing the venous plexus, resulting in a blood flow or hematoma about the cord. (See insert cut No. 4). It is not advisable to make puncture laterally between the laminae as branches of the venous plexus of the spine are numerous and very apt to be injured, as shown in insert Fig. No. 4. The stylet is removed and the spinal fluid should flow readily through the needle. If there is no spinal fluid, turn the needle slightly upon its own axis. If there is still no spinal fluid, undoubtedly the puncture has not been made in a straight axis, or the point of the needle is not in the spinal canal, and it should be withdrawn and inserted at a different angle. Frequently the first drop or two in the needle will contain blood. If it clears up and the flow becomes normal the injection may be made. If it does not become clear the needle should be reinserted because one cannot expect anesthesia unless the anesthetic solution is deposited in the canal, and if there is no spinal fluid the point of the needle is not in the canal. If 2 c.c. of solution is to be injected, allow about 30 drops of spinal fluid to escape before injection. The anesthetic fluid which has previously been drawn into a 2 c.c. Luer syringe from the ampule is slowly injected into the spinal canal, then the needle is withdrawn and a piece of adhesive plaster is placed over the puncture wound. Do not mix this solution with the spinal fluid by withdrawing the plunger of the syringe after it has once been injected, as this causes the solution to become weakened and may result in no or incomplete anesthesia, and it may produce higher anesthesia than is desired. The object of allowing 30 drops of spinal fluid to escape is to maintain the same intradural pressure which prevailed before injection. Should



a large amount of spinal fluid escape, there is a possibility that the anesthesia will extend higher than is desired. This would naturally cause a more marked drop in blood pressure and possibly produce postoperative headache, or should the solution be injected under pressure it will extend higher than is desired. If the solution is placed in a syringe before spinal puncture is started the injection can be made without undue amount of fluid escaping. The object of having the patient on the side in a reclining position with the head  $10^{\circ}$  lower than the feet is to keep the solution (which is of low specific gravity) well down in the canal. If the anesthesia does not extend as high as desired, the table may be leveled or the head slightly raised until anesthesia is produced up to the desired point. As soon as this is accomplished the head of the table should again be lowered  $10-15^{\circ}$ . This only applies to solutions of a low specific gravity. It is advisable to have a pad placed under the small of the back to maintain the natural curve of the spine and not permit luxation; this is an aid in regulating the anesthesia and prevents the postoperative backache.

One hour before operation 0.016 mg. of morphin and 0.0003 mg. of scopolamin should be administered to the patient hypodermically. This does not intensify the spinal anesthetic nor in any way make it more effective. It helps to allay any fear that the patient may have and relieves apprehension. Should the patient be extremely sensitive or nervous it is advisable to administer 0.016 mg. of morphin and 0.0003 mg. of scopolamin 3 hours before operation and repeat 0.016 mg. of morphin and 0.0002 mg. of scopolamin 1 hour before operation. During the operation the patient's wants and comfort should be looked after by a well trained nurse. You may if you choose call her a "Psycho-Anesthetist". The ordinary operating room nurse has been found of little value. This young lady should be versed in the details of spinal anesthesia. She should be keen to observe any change that may take place in the patient, be able to take the blood pressure readings, and above all be a fluent conversationalist. Her conversation

should be directed along lines of interest to the patient. If the patient wants to talk, permit her to do so. If she wants to sleep, let her. If she wants to be talked to, the "Psycho-Anesthetist" should be able to keep her amused. Of the number who have worked with me I can commend none so highly as the present auburn haired vamp who has the faculty of making a woman forget that she is in the operating room, and causes her to imagine she is attending a musicale or a bridge party. In some unknown way, she causes the children to desert their own mothers for her, and she makes the men feel that the operation could go on forever if she would only remain with them. You cannot conceive the help that a well trained "Psycho-Anesthetist" will be until you have seen one work, nor imagine the amount of responsibility that they can lift from your shoulders.

In conclusion, I do not desire to imply that *you* should employ spinal or local anesthesia, but today when spinal anesthesia has been developed to the point of safety which it now enjoys, if you do use it you will have one of the safest anesthetics, and an anesthetic that will not give you troublesome after-effects, as nausea, vomiting, gas distention, acidosis, pneumonia and innumerable other after-effects of inhalation anesthesia. Another thing which must be borne in mind by all of us is the patient. We must remember that the patient today is becoming enlightened and educated in anesthetics as well as other surgical procedures, and we are more or less than public servants here to serve the public to the best of our ability and to their likings. The surgeon 10 years from today, perhaps much sooner, who is not a master of the technic of spinal, local and regional anesthesia, is not going to enjoy that good clientele that his competitor has across the street who administers all of these forms of anesthesia. There is no operation upon the human body that cannot be performed with greater facility with spinal or regional anesthesia than with inhalation anesthesia, and the postoperative complications and dangers must always be borne in mind.

The equipment for administering this form of anesthesia is simple and inexpensive: One No. 27 gauge hypodermic needle; one No. 22 gauge Pitkin spinal puncture needle; two 2 c.c. Luer lock syringes; one 2 c.c. ampule of spinal anesthetic; one ampule 1.324 c.c. of ephedrin and novocain.

Spinal anesthesia is adaptable in all classes of cases. Be the blood pressure high or low, the patient old or young, fat or thin, cardiac, nephritic, alcoholic or addict.

In cases of extreme shock from hemorrhage or toxic and morbid patients, a local anes-

thetic should be employed in preference to any other form of anesthesia.

It is the safest form of anesthesia we possess for operative procedures below the costal margin.

Viscid alcohol solution is controllable within the spinal canal. Upward extensions or dissemination need not be feared.

Ephedrin and adrenalin are the only drugs to be relied upon in an emergency. Do not waste valuable time experimenting with other stimulants.

Watch spinal and regional anesthesia increase in popularity for the next 10 years.

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### SING ME TO SLEEP WITH AN OLD-FASHIONED MALADY

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There used to be a paucity  
Of mental curiosity  
Regarding facts pertaining to the mysteries of  
life.  
It was an error tactical  
To contemplate the practical;  
Such parley wasn't countenanced, not even with  
your wife.

No lady of propriety  
Could mention in society  
An ailment more engrossing than the chilblains  
or la grippe;  
And mention of the physical  
Drew supercilious, quizzical  
Expressions, not to mention nervous biting of  
the lip.

Eut now to modern men, disease  
Is popular; appendices  
And streptococci mingle in the better table-talk;  
While folk of modest salaries  
Are learned in the calories,  
And children prate of vitamins before they  
learn to walk.

Our young, ere they begin to mate,  
In speculations intimate  
Indulge, they speak unblushingly of various  
facts of sex;  
Nor violate amenities  
By observations when at ease  
That border on the Freudian, with *Œdipus* as  
rex.

It's not for me to criticize  
The modern trend a bit, I size  
It up as quite salubrious, for I am not a crank.  
But oh, how they embarrass me!  
Their knowing glances harass me,  
These young intelligentsia with predilections  
frank.

It may be thought high hat o' me  
To cherish my anatomy,  
But I must own my feelings have been always  
governed so.  
I crave the sweet felicity  
Preceding this publicity,  
The unenlightened privacy our fathers used to  
know.

Howard Cushman,  
(In *Life*, Christmas No. 1926.)



# JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

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## CONVENTION OF 1927

The 161st Annual Meeting of the Medical Society of New Jersey, one of the most successful in its long history, was held at Atlantic City, June 9 to 11 inclusive. In fact, June 8 should be included, for the State Board of Medical Examiners entertained the officers, Board of Trustees and members of the Welfare Committee of the state society at a dinner that evening, and the Trustees held their regular preessional meeting on the same date. Not only was this a courteous act on the part of the Examiners but it served to start the general convention with a joyful and stimulating feeling of good fellowship which continued throughout 3 days of working under heavy pressure.

The scientific program was one of the best ever submitted; every speaker scheduled appeared on time, and every subject discussed was presented in an interesting manner. The symposiums on "Syphilis" and "Intravenous Medication" proved to be even more attractive than had been anticipated, and the essayists were listened to with rapt attention.

In the House of Delegates and at the meetings of the Board of Trustees, the business affairs of the society were transacted with a deliberation and yet with a celerity that speaks well for the smooth functioning of so large an

organization. As the complete transactions will probably be published in form of a supplement to next month's Journal, we shall refrain from reporting special items at present.

In the election of officers, custom was followed and Dr. Walt P. Conaway, of Atlantic City, was promoted to the post of president; while Drs. E. R. Mulford and Andrew F. McBride were advanced from second to first, and from third to second vice-presidencies, respectively. For the position of third vice-president, Dr. George N. J. Sommer, of Trenton, was chosen. As the later resigned his status as an elected member of the Board of Trustees, another well-deserved promotion was made in the election of M. W. Reddan to fill the vacancy. Dr. Reddan's long and efficient service on the Committee of Program and Arrangements won this merited recognition, and his knowledge of the business aspect of the annual conventions should make him a valuable addition to the Board.

There is every reason to believe that the new president will prove as earnest and active as his predecessors in developing the interests of the society. He has been in close touch with President Green during the past year and has followed with interest much of the detail of organization work. His genial character and natural enthusiasm will make him a welcome visitor to the component coun-

ty societies and we predict a year of great activity under his guidance.

The attendance this year passed all previous records, reaching a total registration of 907. An outstanding feature of the convention, and one which contributed largely to the increased attendance, was formation of a Woman's Auxiliary to the Medical Society of New Jersey. Delegates from 14 previously organized county society auxiliaries met for this purpose and proceeded with dispatch and with an inspiring zeal to construct a body that shall be accessory to the medical society in its welfare and educational work. It is to be hoped that the remaining 7 counties will rapidly fall in line for advancement of this movement, a movement that possesses great possibilities for good.

One other development of special import was a request from the secretaries and reporters of county medical societies, gathered at a luncheon as the guests of President Green, that at future annual conventions provision be made for a special meeting at which they may discuss problems affecting their organizational work and the relation of component societies to the parent body; a request that will doubtless be granted and its fulfilment provided for.

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### LINDBERGH

It seems to us not entirely out of province for even a medical journal to take notice of this remarkable, courageous, lovable specimen of American young manhood. Healthy in mind and body, he is the embodiment of what we would have our boys become; the ideal toward which we would have them strive in mental and physical development. A hero—without any “heroics”—he sets us an example of poise, balance, character. God grant he may continue to “be himself” as nobly as he has been for the past 3 weeks; but it will require a strength of character almost unknown to withstand the evil effect of all the adulation being showered upon this youth.

We deserted work, at the conclusion of a noteworthy gathering of scientists, to join the mob moving on New York to greet the homecoming conqueror; not out of idle curiosity

to see the latest hero of an adventure, but to pay personal tribute of respect to an apparently truly great person. And one look at that boy's face repaid us for all the trouble and the tiredness of the journey and the curbstone waiting.

In an epoch when all the world seemed “hell-bent”; when commercialism dominated to an alarming degree—business, sports, even professional conduct; when civilization seemed on the brink of disaster; this youth steps out and restores our faith in humanity. What a blessing! Almost, if not quite, a miracle. Not overlooking or discounting any feature of his conduct in France, Belgium or England, nor the beauty of his brief, impersonal response to President Coolidge when he had received the greatest honor the nation could bestow, could anything be finer than his reply to Mr. Hughes when the latter so fittingly spoke of his service to the “flag”? We have not his exact words at hand, but in effect he said: “This achievement was not the act of a single individual. Behind it was 20 years of aeronautical study, and behind that, centuries of slow scientific development.” How few are the men who in a similar situation would proclaim, even if they at the moment realized, that their own greatest achievement was but the culmination of the study and labors of many other workers that had gone before?

In our own field of labor we can perhaps best see the application and the truth of Lindbergh's remark. How many years of peritonitis and typhlitis preceded the diagnosis of appendicitis and the first successful appendectomy? What cycles of study and investigation, ere a daring surgeon invaded the brain to remove a tumor of the pineal gland? The intrepid original operators, surgical heroes of the age, are not the creation of a day—their work is not the accomplishment of a “stunt”. Lindbergh is representative of the type, combining in his personality knowledge of past endeavors, mastery of his own means, courage to take the next-stage flight. He wonders, doubtless, at all the fuss being made over what he did. To him it was but performance of the task at hand, a task for which he was prepared because of his knowledge of the sub-



ject, control of his instruments and faith in his ability.

In his marvelous performance, though he deems it simple, and in his prompt reward by a world usually considered none too generous, we may all find a useful lesson; a lesson that is well expressed in a poem by Madeline S. Bridges, entitled "Life's Mirror":

"There are loyal hearts, there are spirits brave,  
There are souls that are pure and true;  
Then give to the world the best you have,  
And the best will come back to you.

Give love and love to your heart will flow,  
A strength in your utmost need;  
Have faith, and a score of hearts will show  
Their faith in your word and deed.

Give truth, and your gift will be paid in kind,  
And honor will honor meet;  
And a smile that is sweet will surely find  
A smile that is just as sweet.

Give pity and sorrow to those who mourn,  
You will gather in flowers again,  
The scattered seeds from your thoughts out-  
borne,  
Though the sowing seemed in vain.

For life is the mirror of King and Slave,  
'Tis just what you are and do;  
Then give to the world the best you have,  
And the best will come back to you."

---

## THE FIGHT AGAINST DIPHTHERIA

In the May Journal we spoke editorially of plans for a campaign to abolish diphtheria from this state, and in the June issue, under the head of current events, reported in detail the proceedings of a conference of physicians, educators and health officials, called at the instance of President Green, to consider ways and means of conducting such a campaign. At the recent Annual Meeting of the State Medical Society it was announced that the special committee appointed by the conference had greatly extended the scope of campaign organization, had constructed a list of all the welfare organizations within the state, and had asked the State Government to sponsor the project so that the movement might truly become state-wide in application and effect.

We are delighted to report now that Gov-

ernor A. Harry Moore promptly acquiesced in the general plans originated by the medical society, accepted the conference proposition that he should head the movement to co-ordinate all of the state's forces that might be induced to engage in this health battle, and at once issued from the State House at Trenton an official call for a conference of interested organizations. The proposed meeting is scheduled for June 29, and in the call Governor Moore says: "The State Government is vitally concerned in the health of our citizens and heartily approves this effort to rid the community of a disease which, while not nearly so prevalent as in former times, still takes a considerable toll of lives each year—and particularly causes the death of many infants and innocent children of tender age. Speaking, therefore, as titular head of the State, it gives me pleasure to endorse this project and to assume the prerogative of calling this general conference on the abolition of diphtheria."

This is one of the most important health movements ever started in New Jersey and we feel that the Governor's leadership in the matter is a most auspicious circumstance. Where he leads, in a matter of such generalized welfare, all persons who have at heart the best interests of the State must follow.

There will be a deal of preliminary work to do before all of the invited organizations can be brought into effective coöperation. In order to marshall all of these forces into a compact, smoothly coördinating regiment, each group and practically each individual will have to be instructed as to the part to be played when the order for concerted attack shall be given. It may require some months of time to work out a suitable plan of campaign and to assign special duties to different groups of workers, but the first great step forward will have been taken ere you read this.

Every member of this society should immediately inform himself concerning the methods employed to eradicate diphtheria in localized areas in this and other states, and hold himself in readiness to perform his special task when the plans are completed and the call for help is issued.

## In Memoriam

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FISHER, Claudius R. P., was born on a farm near Ringoes, Hunterdon County, N. J., August 12, 1859, the son of James Slack Fisher and Catherine Lane Stout, and was the youngest of 10 children. He received his early education in the Public Schools and the Academy at Ringoes. As a boy, on the farm, he helped with the general work, but early in life evidenced a strong desire to study medicine. He started his medical education under Dr. Rex, of Ringoes, who acted the rôle of preceptor. In 1875 he entered Jefferson Medical College, Philadelphia, and graduated in March, 1877, being yet under 21 years of age when he received his diploma. He started the practice of medicine in the fall of 1877 at Neshanic Church, later moving to Neshanic Station, N. J. In 1881 he married Mary S. Stryker, of Neshanic, who still survives him. They had 2 sons, William A., of Bound Brook, still living, and a son who died at about the age of 10 years.

Dr. Fisher practiced for about 5 years in the Neshanics, and about 1883, moved to Bound Brook at which place he practiced until the time of his death on June 5, 1927, at the age of 70. He was an active member of the Somerset County Medical Society, which he joined in 1878, and the records show that he served as president for 5 different terms. He also held the offices of Vice-President, Secretary, Reporter, and Censor, at different times, always accepting the duties of any office willingly when he was asked to serve. He attended every meeting, if at all possible, and always took an active part either in the business proceedings, at which he was very alert, or in the scientific discussions. He served as Annual Delegate to the State Society for several years and was elected a Permanent Delegate in 1896. His marked interest in the county work led up to his election as President of the State Society in 1898.

Dr. Fisher took great interest in civic affairs. He was Director and Vice-President in the Bound Brook National Bank. He served as First President of the Bound Brook Board of Health and had a continuous record as a member from 1892 to 1926. He was very proud of being an examiner on the Draft Board during the World War. He was a physician on the staff of the Somerset Hospital, one of its Founders and an active supporter since its incorporation. He rarely missed a Staff meeting. He was also a member of the Auxiliary Staff of Muhlenberg Hospital of Plainfield. He had prepared many papers for the State Medical Society during his years of interest and took an active part in the discussions. He was a 32nd degree Mason, a Shriner, and a Past Master.

As a councilor in medicine, Dr. Fisher worked for the best interests of his patients, was ethical to his fellow practitioners, and ready at all times to give his services. He was firm in his convictions, kind in his judgments, and courteous to all. He served his community well as a general practitioner and will be greatly missed by all who knew him.

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### RESOLUTION

At a meeting held on June 8, 1927, the Board of Trustees of the Medical Society of New Jersey learned with profound regret of the death of Claudius R. P. Fisher, M. D., of Bound Brook, New Jersey, a Fellow and former President of the Medical Society of New Jersey.

Therefore, be it resolved that in his death, the Society has lost a most faithful and valued member and associate.

We mourn and sympathize with the family in their bereavement and we extend to them our deepest sympathy in this, their hour of sorrow. Further, be it resolved that this resolution be spread upon the minutes and a copy forwarded to the family.



## A Tribute to the Late David Combs English, M. D.

With appropriate and impressive ceremonies, a tablet in memory of the late Dr. David C. English was unveiled in the Presbyterian Church by the Medical Society of New Jersey, Sunday, May 15, 1927.

George E. Christ presided at the organ. The duet, "My Faith Looks Up to Thee", was rendered by Mrs. E. P. Starke and Mrs. A. L. Hohwald of the church choir, and Mrs. Hohwald sang the solo, "My Task".

Dr. James S. Green, president of the society, presented the tablet to the church with a few well chosen words, and the tablet was unveiled by Earl Roland English, great-nephew of the late doctor.

Dr. Cordie J. Culp, pastor of the church, accepted the tablet and spoke of the fine work Dr. English had done for the church. He was a member of the Presbyterian Church for 67 years, elder for 51 years, and Clerk of the Session for more than 40 years. As clerk, he left behind him a beautiful record of the past work of this church.

Among those present from the State Medical Society were: Drs. James S. Green, J. B. Morrison, Norton L. Wilson, Edward J. Ill, Wells P. Eagleton, F. C. Johnson, Arthur L. Smith, G. F. Leonard, Benjamin Gutmann, and Lancelot Ely.

The tablet is on the wall near the pew which Dr. English occupied for many years. It reads:

In Memory of

David C. English, M. D.

A President of the Medical Society of New Jersey and Editor of its Journal.

Erected by the society as a token of appreciation for his long and self-sacrificing labors for the profession.

Following unveiling of the tablet a dedicatory address was delivered by Dr. Eagleton, as follows:

Dr. David Combs English, whose tablet we dedicate, passed the great barrier that limits the spirit on September 19, 1924, after walking with his God among men for four score and three years; the last half of which time was devoted solely to the interests of the medical profession and of Christ's Church.

All his life Dr. English practiced a profession—a learned profession—untinted by business; for in his thought there was a difference between business and a profession—business, an occupation primarily for gain; profession—a vocation primarily requiring culture, to be applied to the assistance of others.

Judged by the standards of earthly success or scientific achievement, his was far from an emulable life. During his day America passed from a powerful nation of great opportunities to the most powerful nation of great material fulfillments. But the smoking chimney and the whirling motor left him cold. With undaunted courage he saw his worldly resources slowly dwindle. But, weighed by that ethic given in Galilee, his life was conspicuous. For he served a cause with an energy and self-abnegation that is unique in the annals of medicine in this State during our day and generation. The cause?—the furtherance of the interest of his fellow-healers, and this because of the love that was in his heart, enjoined by the Master.

During the World War one unheeded voice asked, "Why not give Christianity a chance?" It took the World War to demonstrate that Christianity has no chance, that in the competition among men and nations the Christian ethic is delegated to lip-worship. Even the Puritans "Fear God and keep your powder dry" must be abbreviated.

Dr. English gave Christianity a chance. He willingly and with clear vision accepted the penalties of self-sacrifice for the call of the spirit.

Dr. English was fundamentally a family physician, thought as a family physician, worked as a family physician; up to the day of his death he did all his writing work in long-hand. And as a family physician he honored the oldest State Medical Society in America, bestowing on it a clannish devotion.

He was wont to say, "I love the State Medical Society", and by that love he produced its Journal for an honorarium of \$600 to \$1200 yearly, belatedly increased to \$1500. A few months before his death, when all practice had long been renounced, he accepted an additional \$500, refusing the proffered \$2500 salary, saying that he could live on \$2000 and that the Society could not afford more.

During the whole of his editorship he regarded the Journal of the Medical Society of New Jersey as a family affair—the voice of the family. It existed to preserve the clan, to hold it together, to shield it, to interpret it to itself, to honor it. During the many years



of his editorship no word or insinuation, no mean or petty jibe against a member of the medical profession of New Jersey darkened its records or marred the justice due its fellows.

He had faith in New Jersey doctors because they were doctors, and this in spite of trying moments and many petty antagonisms, for Dr. English was not a meek man; he was a haughty and self-assertive man, and he practiced a living, working, fighting faith with tireless energy to the end. He believed that it was not only beneath the ethics but the dignity of the profession to resort to recognized political expedients; and the severest condemnation I ever heard him voice was against a physician for playing "practical politics"—"logrolling", as he contemptuously called it.

Tolerant of creeds, he opposed the slightest infringement of divine injunction. I well remember a letter vigorously protesting against the holding of Committee meetings on Sunday. To him, "Six days shalt thou labor, and do all thy work, but the seventh day is the sabbath of the Lord thy God", was to be obeyed not only in spirit but to the letter.

In his thought there was no conflict between religion and science. He welcomed all advances with enthusiasm, as a tribute to man's genius and a revelation of the Master's greatness.

My vision of Dr. English is that of a very old man but with head erect and blithe step returning, late at night, from a medical gathering held in such an out-of-the-way place that the return journey for him required 3 trolley rides; a gathering attended simply to show his appreciation, as an officer, of the work of a fellow-member of the State Society. One cannot know the influence of such a leader, for the imprint of devotion, high-mindedness, and stalwart faith cannot be estimated; its very simple presence minimizes meanness and stifles duplicity. It is only when it is removed that the splendor of it can be appreciated.

The death of Dr. English was an irretrievable loss to every doctor in New Jersey and to this Church of which he was an elder for over 50 years, for his life was a demonstration that man can be cultured, be learned and still live by the power of faith. The Medical Society of New Jersey honors itself by here publicly testifying that self-sacrificing devotion to the interest of his fellows finds a resounding chord in the human heart.

## Medical Ethics

### THE AGE LIMIT

John Hammond Bradshaw, M.D., F.A.C.S.,  
Orange, New Jersey.

*"We must stand up against old age and make up for its drawbacks by taking pains. We must forget it as we would any illness. We must look after our health, use moderate exercise and take just food and drink to recruit but not overload our strength. Nor is it the body alone that must be supported, but still more the intellect and the soul; for they are like lamps—unless you feed them oil they will go out."*  
Cicero.

When Osler borrowed the term *The Fixed Period* from Anthony Trollope and gave his celebrated address at Johns Hopkins University, February 22, 1905, as his benediction before going to live in England, to use one of our colloquial expressions, he "started something". Few addresses have been more quoted and more misquoted. But read what Osler himself said, later, about this same address:

"To interpose a little ease, to relieve a situation of singular sadness on parting from my dear colleagues of the Johns Hopkins University, I jokingly suggested for the relief of a senile professorate an extension of Anthony Trollope's plan mentioned in his novel, *The Fixed Period*. To one who had all his life been devoted to old men, it was not a little distressing to be placarded, in a world-wide way, as their sworn enemy; and to every man over sixty whose spirit I have thus unwittingly bruised I tender my heartfelt regrets."

We all know what a practical joker was Osler. Even once when he was suffering agony himself from an attack of gravel, he could step into his garden and gather a handful of pebbles to put into the usual receptacle to fool his physician. And he did!

Now, whether we call it senility, senescence, or senectitude, the interest in the subject of old age has existed from earliest times. The *elixir vitae* has been a chimera. The early alchemists sought chiefly for two things: that which would prolong life, and that which would turn metals into gold. The search still continues. Who does not know of Paracelsus, Cagliostro, the Rosicrucians, and Goethe's Faustian invocation of the Devil? Even at the present day, the Steinach and the Voronoff operations allure the minds of men.

Benjamin Franklin (who usually had something to say) remarked after he himself was in his ninth decade, that it was a pity man seldom begins to give this subject ser-



ious thought until too late in life to be much benefited. There is no doubt but that the speed, the hurry and the intensity of modern life speeds also the coming guest. The constant whipping up of the heart by high pressure living, our over-feeding, over-drinking, over-smoking, over-exertion, the strain of anxiety in our investments and speculation, great excitement, especially anger and temper, immorality, our neglect of toxemias—all are factors. Despondency generates toxins; cheerfulness expels them.

While old age is the law of God and is inevitable, senility we have somewhat under our own control and it is not inevitable.

An interesting topic is the modern study of the gonads, for senile decay is undoubtedly connected with a failure of the endocrines. Was not Brown Sequard (the Harvard professor who died in France) on the right track, way back in 1889? Can the sex hormone be independent of sex?

It has long been the writer's opinion that there should be an age limit for certain work and for certain positions in life. Because it is difficult to set such age limit, the matter is neglected. Do we not find doctors retained on the active list in our hospitals long after it would be better for those institutions (as well as for the men themselves) if they were honorably retired? The London Hospital, for instance, has the rule that a man can hold a senior position but 20 years; and because of this law Sir Frederick Treves, not only one of the ablest of all English surgeons and authors, but surgeon to King Edward VII, himself was retired almost before he had reached his fiftieth milestone, at the very zenith of his activity and fame. Is it not wrong to keep so many Junior Surgeons from positions they are more competent to fill, just because, for sentimental reasons, some old fellow is kept on the active list when probably his own life would be prolonged if he was given his richly earned rest and retirement? This would not mean that he be laid on the shelf, for there is almost no age limit to a man's usefulness, provided his faculties are alert and his cerebrational powers intact.

Now there is no doubt that Osler firmly believed that but little great creative work was done by the man "upon whose back the sun was shining". Du Maurier, on the other hand, held that the best years of a man's life are those after he is 40 years of age.

Every one can think of instances of intellectual force—sometimes remarkable—in advanced life. Von Moltke and Foch did their greatest work after 70; Weir Mitchell was the rare example of a man in his eighth decade who turned, and successfully,

for the first time to literature. William Cullen Bryant was writing books at 80; Joseph Jefferson never acted better than when he was 75. Cato is said to have mastered the Greek language at 80. We all know of Gladstone's accomplishment and mental grasp at almost 90. Lord Tennyson wrote "Crossing the Bar" when he was 83. Did not Michelangelo do his *magnum opus* at 90? Bancroft at 90 was still writing history, while Goethe at 80 finished "Faust". Talleyrand, Guizot and John Wesley all did enduring work in old age. Titian at 98 painted his celebrated picture, "The Battle of Lepanto". Chevreul, the great scientist, was hard at work at the advanced age of 103. It is a fact that many of the finest achievements in business, statesmanship, literature, and, in fact, all the activities have been wrought by men long past 60. Grote at 71 wrote his "Aristotle". Handel at 75 gave to the world a great oratorio. Wordsworth at 73 was Poet Laureate of England. Galileo at the same age invented the telescope. Is not Edison at 80 one of the wonders of the world? Thiers at 74 was President of France; Verdi at 85 wrote his immortal "Requiem". How about Oliver Wendell Holmes? His son, at 83, is today one of the most active Justices of our U. S. Supreme Court. Washington Irving wrote the "Life of Washington" at 76. Dr. Stephen Smith lived with clear mind to the age of 100. Does not Dr. W. W. Keen, at almost 90 live up to his own name? How about Benjamin Franklin and our perennial Chauncey Depew? Nester is said to have lived and worked till after three times the span of usual human existence.

But why multiply instances? To those who say that these are exceptional cases, we reply—Although this is true, do they not belong to the human family, and where it is possible for one human to do these things, is it not possible for others?

It is only necessary to read the statistics of Hoffman, one of the world's greatest statisticians, to learn of the steadily increasing age limit in this country. About 1600, the average duration of human life was about 25 years. In this our year 1927, it is almost 60. But it is not often brought to our notice that with this increase in life there is also an accompanying increase in our mental productivity—our cerebrational activities.

Turn now to another side of the picture, and look at the old daguerreotypes of our grandmothers at say 50 years of age—less than a hundred years ago. Now compare those "likenesses" with those of the same age at the present day. What is it that

grandmother of today cannot do that her grandchildren are doing?

Now this is, after all is said, the very gravamen of this subject. If we could but buy "spare parts", could we not in our own person start a Life Extension Institute? If the law of ratio of adolescence and duration of life holds true and the elephant who matures in 40 years, lives to the age of 200, the dog or cat, maturing in 2 years, lives to the age of 10, then man, who takes 20 years to mature, should live, by all rules of thumb, to the age of 100.

If we are only born right, is it not our own fault if we drop off prematurely (excepting accidents, poisons, and germs)? Senility always shows us that some of Nature's laws have been broken. We must also *think* right. We must keep out of the ruts. We must give sport its proper place, but remember its dangers. Bad habits are just as sure to "get you" as is focal infection or ptomaine poisoning. Laws have to be executed, but these things are our own executioners.

When we come to the modern and growing, but complicated, subject of the endocrines, we must remember we are just emerging from a fog. It is not necessary to go to the length of the African savages, who ate the testicles of their enemies to give themselves old age. But who now denies the positive effects of thyroid feeding? Metchnikoff opened up a new vista when he showed that certain bacilli introduced by us into our intestines transferred the surplus sugar of their contents into lactic acid, causing disinfection of the intestines by destroying the noxious germs. As an efficient example, he cited the phenomenally large number of centenarians living in Bulgaria consuming Kumyss and similar drinks, and the Asiatic patriarchs living to the authenticated age of 150 years.

Ignore them as we will, the glands produce the effects in our bodies of fortissimo and pianissimo. We are only on the threshold.

Although it may read like a twice-told tale to quote Lorand, yet it will do no harm to our conscious and subconscious minds again to read his 12 rules for a green old age:

#### OLD AGE DEFERRED

Arnold Lorand (Medicine, 1912)

#### *Twelve Commandments for a Green Old Age*

(1) To be as much as possible in the open air and especially in the sunshine; and to take plenty of exercise, taking special care to breathe deeply and regularly.

(2) To live on a diet consisting of: meat

once a day, eggs, cereals, green vegetables, fruit, and raw milk of healthy cows (as much as the stomach will permit); and to masticate properly.

(3) To take a bath daily; and in addition, once a week, to take a sweat bath (if the heart can stand it).

(4) To have a daily action of the bowels; and in addition to take a purgative once a week if there is any tendency to constipation.

(5) To wear very porous underwear, preferably cotton; porous clothing, loose collars, light hat (if any), and low shoes.

(6) To go to bed early and to arise early.

(7) To sleep in a very dark and very quiet room, and with a window open; and not to sleep less than 6 to 6½ hours nor more than 7 or 7½, and for women 8½ hours.

(8) To have a complete day's rest each week, without even reading or writing.

(9) To avoid mental emotions and also worries about things that have happened and cannot be altered, as well as about things that may happen. Never to say unpleasant things, and to avoid listening to such, if possible.

(10) To get married; and if a widow or widower, to marry again; and to avoid sexual activity beyond the physiologic limit, as also to avoid a total suppression of the function of these organs.

(11) To be temperate in the use of alcohol and tobacco, also in the use of coffee and tea.

(12) To avoid places that are overheated, especially by steam, and that are badly ventilated. To replace or reinforce the functions of the organs which may have been changed by age or disease by means of the extracts from the corresponding organs of healthy animals; but only to do this under the strict supervision of medical men who are thoroughly familiar with the functions of the ductless glands.

I add another:

(13) To take once a year an account of your stock, a checking off, or, in other words, a Periodic Health Examination.

## Medical Economics

### EXORBITANT BILLS

(Discussion of a patient's complaint, as seen by the Memphis Times.)

A somewhat dismal wail comes to the Times from a citizen recently recovered from what he calls a "minor operation" performed by a local surgeon at a local hospital. It is gathered from the statement



made in the complaining communication that the writer had been attacked by a "pain" he didn't quite understand; that he applied with alarm to the staff at the hospital who, after examination, decided that an "operation", which was "simple", would be necessary to give "permanent relief". Suffering as he was, the patient agreed, of course; he was put on the table and the offending trouble was removed. It took him several days at the hospital to recover. Later his "bill" came in, and then he was seized with another sort of "pain". Perhaps if the bill had come to him before the operation, he would have thought it a small matter compared to the suffering he was undergoing—for, as a matter of fact, the bill was very reasonable in all the circumstances. The incident recalls the old saw, "The devil sick a saint would be; but the devil well, ne'er a saint was he".

It is due to the rapidly growing hospitalization of the country and the consequent promptness with which people can get their ailments effectively and intelligently attended to that the average of human life is being annually prolonged. A small "pain", an innocent looking bruise or cut that, neglected, might lead to serious if not fatal consequences, are now rendered innoxious by the prompt treatment of the surgeon or physician, in these days so easily reached at the hospital and because we do not die but, instead, are soon about our daily affairs with our usual health and vigor, we "cuss" the surgeon or the doctor when his bill comes in, instead of "blessing" him as we should because he did for us so much and with the least of delay and physical pain.

The physician and the surgeon are, perhaps, the most abused people of all the professions. They are called upon at all hours; they are forced to respond to "emergency" calls from all sorts and conditions of people, have limited periods of rest—in fact, if they should yield to all the exactions made of them, they could not and would not last more than a few years at most. The bills of the reputable physician or surgeon are never exorbitant and, public experience teaches, are generally made to fit the quality of their service and the ability of the patient to pay. They have regular charges in certain ordinary cases, but it is a rare thing that every case that comes to them is of the average kind for which they can fix inflexible fees.

But whatever the fee, it would never be too large if we were always conscious, as we should be, that without the service rendered

we might be in our "cold, cold grave", or living a life of prolonged pain and chronic suffering. Experience in the investigation of the complaints as made in the letter to the Times, referred to, reveals the fact that neither the physician nor the surgeon is "arbitrary" in his insistence upon his charges, if and when he finds out that the patient is either indigent or unfortunate. It is perhaps, true as is often said, the doctor and his brother, the surgeon, do more "thankee" work than any other class of professional men, and it is a rare thing that their charges, except, perhaps, in cases where the patient is able to pay, are commensurate with the real value of their services.

So our complaining friend might feel more complacent about his "doctor's bill" if he would simply reflect upon what might have been the consequences if he had not had prompt and expert attention at the moment such service was most needed. It would, perhaps, help to a better understanding of our debt to the physician and the surgeon if we would always remember that life and health are two things the value of which cannot be appraised in dollars and cents.

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## Special Article

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### REGULATION OF PHYSICIANS BY LAW

(Sixth Article)

Continuing our consideration of the argument so frequently set up by those who would enter upon the practice of medicine without adequate training and without any, or with very little, knowledge of the fundamental, underlying sciences of anatomy and physiology, i. e., the argument that a sick person has an inherent right to determine for himself what form of treatment he shall receive, we quote further from Kelly's article:

#### Personal Liberty

One of the stock arguments by those who oppose legislative regulation of many important subjects is the trite assertion that "personal liberty must be preserved." That argument is used in this connection. But one's personal liberty must be so exercised as to allow to every other person an equal domain of personal liberty, else it becomes one man's license and another's oppression. We are too well acquainted with those persons who exercise their personal liberty to the extent of infringing the rights and impairing the happiness of their associates, and who by their arbitrary and selfish conduct create most of the real need for inhibitory regulation by law. As the spirit of democracy has grown, the people have come to a better appreciation of the need of suppressing the

unlimited freedom of those arbitrary persons who have contended that their own will was not only their personal liberty but also the measure of the personal liberty of their associates; and they have enacted statutes to establish the equality of all men not only theoretically before the law, but practically in the life of every community. Advocates of the special privilege of doing what they pleased in the name of personal liberty have rebelled against these just inhibitions, ostensibly to fight for freedom, but really to impose their own arbitrary will on others as the personal liberty of the people.

#### WHAT SPENCER AND MILL SAID ABOUT PERSONAL LIBERTY

Personal liberty is not an exact thing measurable mathematically, but a relative condition varying with circumstances. It is not license to do what you will, regardless of the welfare of other persons, but it is decently ordered freedom within the necessities, opinions and equal freedom of associates and neighbors. Those who talk about "medical freedom" include within their numbers not only some honest, misguided persons, but all of the quacks making their living by swindling the public and trying to keep their corrupt occupations within the protection of the law, who therefore, labor to demonstrate that their right to operate their nefarious enterprises is based upon the genuine personal liberty of the people. Hence the great hue and cry about personal liberty, set up chiefly by those who are engaged in occupations condemned by the moral sense of mankind.

John Stuart Mill, the world's celebrated spokesman for the most enlarged personal liberty, writing in 1859 in his famous essay, "Liberty", and stating therein "the meaning and limits of the two maxims which together form the entire doctrine" of his essay, said:

The maxims are, first, that the individual is not accountable to society for his actions, *in so far as these concern the interests of no person but himself*; . . . secondly, that *for such actions as are prejudicial to the interests of others, the individual is accountable*, and may be subjected either to social or legal punishment, *if society is of opinion that the one or the other is requisite for its protection*.

Herbert Spencer, writing in his great work, "Justice", and dealing with the same subject, promulgated his "doctrine of equal freedom", that every man ought to be free to do that which he will, *provided he infringe not the equal freedom of any other man*.

No statement of justice or liberty by any philosopher, statesman or publicist of recognized worth has included claims for personal liberty beyond these by Mill and Spencer. But both of them exclude license, and emphasize the interests of others than ourselves. It is apparent that under any reasonable interpretation they fall far short of the requirements of those who for selfish purposes, on the ostensible ground of personal liberty, seek to evade legislative regulation of the occupation of ministering to the sick.

#### WHAT A COURT SAYS ABOUT PERSONAL LIBERTY

With reference to personal liberty as involved in legislation of the kind here under consideration, the Supreme Court of Missouri, speaking in 1911, said:

"It is contended that to so construe this statute as to forbid any one to treat the sick, without possessing the technical knowledge required to pass an examination before the state board, where such treatment does not involve such technical knowledge, would result in denying to the people a

constitutional right to determine how they shall be treated and also in denying to citizens the constitutional right to pursue a lawful calling for a livelihood; in short that such a construction amounts to a deprivation of both liberty and property. This contention begs two questions: (1) Have the people an unrestricted right to determine how they shall be treated? (2) Has a man an unrestricted right to pursue any lawful calling? The legislature has the power under the constitution to pass all necessary laws to guard the morals, safety, and health of the people, even if such laws in some degree operate as a restraint upon recognized constitutional rights. An absolute right to liberty or property, or even life itself, does not exist. The state may and does deprive its citizens of either of these so-called constitutional rights. When the lawmaking power forbids the manufacture of liquor, an absolute destruction of property results. Yet this may be done in the exercise of the police power. Our jails and penitentiaries are filled with inmates who have been deprived of their liberty for the public good. The power of the state to deprive its citizens of their lives for the public good has never been questioned. In other and various ways citizens, for the public good, may be deprived of liberty and property. True, these rights of the citizen are to be impaired only when necessary for the public good. But who is to judge whether the necessity exists? The authorities agree that this power of judgment lies with the legislature." (State vs. Smith, 233 Mo. 242; 135 SW 465.)

Observing the laws regulatory of occupations and the conditions out of which they have grown, we notice that such laws very generally provide for (1) insuring the efficiency of those who pursue them and for (2) preventing their misuses of the occupation by oppressing the people.

The most casual examination of the regulations prescribed by law for the profession of healing discloses that these have been their two objects. Only slight experience with certain classes of persons who hold themselves out to the people as healers is required to enable one to see the desirability of such laws and the pertinency of the two objects sought in their enactment.

#### WANT OF KNOWLEDGE AND SKILL

Cases tried in the courts, and facts otherwise brought almost daily to our notice, show the calamitous consequences of the healer's want of knowledge, or skill, or diligence, extending from one's personal inconvenience, or temporary impairment of physical or mental powers, to woeful burdens to be endured throughout life, increasing in terror as life lengthens, or, indeed, to death itself. Calamities are caused by the physician's failure to act at all, or by acting erroneously or negligently, which would have been avoided by more information, or by a higher degree of skill, or by greater diligence. Physicians of the most thorough qualifications cannot be absolutely proof against mistakes, so powerless is a human being to be perfect in any occupation, but especially in remedial ministrations to the complex organism of man. But the ignorant, or unskilled, or slothful healer is seen in daily life to be the prolific creator of irreparable sorrows, largely avoidable by better educational preparation and by the state's more careful selection of the persons who shall be permitted to hold themselves out to the people as healers. The failure or refusal to recognize a disease, or to apply the efficacious remedy, or the misuse of a therapeutic agent, by a person holding himself out as a healer of diseases, is an invasion



of the public health, and, therefore, of the welfare of the state itself, and ought as far as possible to be made obnoxious to the law.

#### WANT OF CHARACTER

Nor is the situation less lamentable upon the other consideration to which such regulatory legislation pertains, that of preventing the occupation of the healer from being used to perpetrate frauds. This occupation is the favorite resort of scoundrels bent upon making a living by undoing the innocent, because into its domain come the sick, by disease rendered unable to protect themselves from the chicane of conscienceless pretenders and reduced to the ranks of the vast army of pitiable derelicts, who, vainly, seeking health and resolutely fighting death, hopefully turn their faces to every quack promising impossible relief but secretly plundering the sick.

The histories of quackery, especially in great cities, embodying every kind of healers, from those ignorant or cunning pretenders who lay claim to the possession of divine powers of healing to able men trained in the best medical schools, is a record of depravity, plunder, wrong to the people, and calamities to the public health. By these pretenders persons in good health are deceived into the belief that they are sick, persons who are really sick are purposely made more so, or are made to think themselves worse than they are, and all persons who fall into their clutches are artfully defrauded. No depravity is deeper than that of these emissaries of villainy. It is the worse because carried on against the weak and innocent, under the shielding cloak of those human pretensions to which we all harken. This great scourge should be wiped out by the hand of the state, whatever the cost in money, or inconvenience, or trouble to honest physicians.

In all legislative acts passed for regulating the occupation of healing the sick, ample provisions should be made for rendering it impossible to use the profession for committing frauds on the people. There is no part of a legislative act relating to this subject which provides a greater service for the people than that prescribing grounds for the revocation of the licenses of unworthy doctors and for the refusal to grant licenses to unworthy applicants for them.

We ought to strike at fraud wherever we find it. The most effective means ought to be put into the hands of public officers for carrying on a vigorous and constant warfare against men who attempt to make villainy a profitable business through the agency of that profession to which all men have learned to look with the hope of receiving fair and efficient treatment for relief from disease, suffering and death. This much the medical profession ought to continue to try to accomplish, because it is a necessary public service and because all respectable persons sincerely desire to support every movement for preventing fraud. The people have only to be informed correctly what fraud is, and where it is, to be aroused to giving their power freely to honest endeavors to destroy it.

Members of the medical profession are trying to do their whole duty in this respect. Though it is a difficult task, and sometimes a thankless one, to ferret out scoundrels who conceal themselves under the cloak of professional decency, the effort by the profession to drag them from the protection of professional privileges must go forward continuously in order to fulfill its obligation to serve the people and in order to save the honor of the profession.

(To be continued)

## Medical Book Review

(Department Director, Royce Paddock, M.D.)

APPLIED REFRACTION, by Homer Erastus Smith, M.D.,  
New York, William Wood and Company, 1927,  
126 pages. Price, \$2.75.

(Reviewed by H. E. Harley, M.D., Atlantic City)

This little book is crammed full with valuable gems; so crammed in fact, in both literary and typographic presentation that the compactness may militate against its deserved reception.

The author plainly states, in the preface, that he intends the work for the experienced refractionist. Let us hope that his next effort will be addressed to the young men about to enter upon their life-work of learning refraction.

The book-making of this little volume is anything but attractive: long, unbroken paragraphs of closely set, small type is not to be praised in a book whose worthy theme is the art of correcting eye-strain. It is more likely to repel the very ones who should read it.

The text is written with personal punch and is packed with priceless information. There are, frequently, short sentences containing a statement of fact worthy of an essay. And there are places where details should, certainly, be more fully elaborated, even for the experienced refractionist. Men like Dr. Smith too frequently assume that a reader knows the subject as well as he and is satisfied with a statement epitomizing a truth with which he has long been familiar but which is new to the reader. And while, in his sincerity, he has made no bid to attract the uninitiated in the art of refraction, he should have done so; for after all, the book is the outcome of his urge to teach. Take, for instance, his remarks on page 22, or this from page 35: "Every skilled refractionist can cite cases to show how painstaking exactitude in correcting refraction can delay or prevent further progress of lenticular opacities." Such statements will be challenged, but can be easily defended by the skilled refractionist who knows, and who possesses the genius of painstaking exactitude. The present need is to make more of such men.

It seems altogether fitting that such a book should be dedicated to the memory of Dr. George Milbry Gould, for it is fair to assume that he, the Master, would approve it. Had he been spared the years and strength, it was his frequently expressed desire to give to the world the benefit of his knowledge and technic, in the form of a text book. His interest and hope was in the young men. The fact that such a book as *Applied Refraction* is a beginning of the recognition of the value of Gould's Gospel of Eye-strain gives strength to the hope that more books on this subject will follow and that Gould's methods will finally triumph.

#### Traffic Regulations in the Woods.

A young husband was anxiously awaiting news of the birth of his first child. He was pacing up and down the hospital corridor when the doctor came out and told him to control himself or else take a walk around the block.

"But I tell you I'm scared to death," protested the young man.

"You needn't be," replied the doctor. "I've brought more than 2000 babies into the world and I haven't lost a father yet."

## Observations from the Lighthouse

### BRONCHIAL ASTHMA

As the season of hay-fever again approaches and threatens to add its quota of victims to those who more or less constantly suffer from attacks of bronchial asthma, it is natural that our attention should have been attracted by a symposium upon the latter subject that appeared recently in the *Atlantic Medical Journal*, and we have made this the principal theme for this month. In the same connection we recall an article that came out last year toward the close of the seasonal attacks of these conditions and which gave promise of future benefit to those who might try it, i. e., the therapeutic employment of the new remedy—ephedrin. During the past winter the writer has had some opportunity to experiment personally with a 3% solution of ephedrin sulphate (Lilly), used as a nasal spray, for a vasomotor rhinitis and has found it quite efficacious.

### Hypersensitive Phenomena

Abnormal hypersensitiveness says J. Alex. Clarke, Jr., (*Atlantic M. J.*, 30:285), may occur either artificially or spontaneously. Anaphylaxis is an example of artificially produced hypersensitiveness. All anaphylactic phenomena are due to the interaction of a foreign substance on antibodies which have been produced as a result of previous doses of that substance. Certain members of the human race exhibit unusual or hypersensitive reactions in the form of a transitory edema of the skin or mucous membranes. The usual sites are in the bronchi, nose and skin, producing respectively asthma, hay-fever and urticaria.

This hypersensitiveness has been called atopy, and the foreign substances producing it, atopens. It differs from anaphylaxis in a number of essential features, chief among which are its spontaneous development in only certain members of the race, its complete independence of the antigen-antibody reaction, the variability of the symptoms, and the well established hereditary factor.

In atopy there have been discovered in the circulating blood certain bodies (atopic reagents) by means of which it is possible to transfer the skin reaction of atopic individuals to the skin of normal persons. When mixed with a solution of its specific atopen (the substance which gives the skin reaction in the donor of the serum) no physical changes, such as precipitation, take place, but the reagents are neutralized in the serum without producing any recognizable loss of atopen. Furthermore, a neutralized reagent is absolutely nontoxic. When the serum is injected into a normal skin site which has previously been injected with some of the atopen, no reaction takes place, either at the time of injection of the serum or when the site is subsequently tested with the atopen. Thus we have the neutralization of the atopen in vivo without the production of any reaction. This means that the reagents must be in contact with a skin cell in order to react to the atopen.

The part played by these reagents in the production of clinical manifestations of human hypersensitiveness is not understood, and the experimental evidence at hand is very confusing. Reagents have been found in the blood of all persons suffering from asthma and hay-fever in whom there is a positive skin reaction to a sub-

stance to which the patient is clinically sensitive. In hay-fever the strength of the reagents in the blood is comparable to the strength of the skin reaction, usually being stronger than the blood-serum reagents. After hyposensitizing a hay-fever patient by means of the familiar pollen injections up to the point of almost complete clinical relief, the reagent content of the blood is the same as before treatment was started. Furthermore, the reagent content when titrated by sensitizing a normal skin with dilutions of the serum gives no indication of the severity of the clinical symptoms.

There are other factors which play a rôle in hypersensitive phenomena in humans for which there is no real explanation. The most important of these is infection with pyrogenic organisms. Frequently the infection is not in the same part of the body as the manifestations of the hypersensitiveness.

Barometric changes have an effect on asthma, and in women the generative functions have a decided influence. Menstruation usually aggravates; pregnancy may aggravate but often produces total disappearance of symptoms. The study of these hypersensitive phenomena which are dependent on the formation of antibodies has resulted in the development of some very important clinical tests, such as the Wassermann and Widal reactions but at present our total knowledge regarding reagents is very fragmentary.

### Disease of the Upper Respiratory Tract in Relation to the Etiology and Treatment of Bronchial Asthma

Although the authors of this paper, Simon S. Leopold and George Fetterolf, do not expect their report of 24 cases (*Atlantic M. J.*, 30:286, Feb., 1927) to have any statistical value, they believe that certain generalizations may be permitted from such a study.

The chief pathologic findings in this group of cases were: (1) obstruction of the posterior nares by turbinate hypertrophy with septal contact, unilateral or bilateral, producing the so-called nasal reflex asthma; (2) infection of the paranasal sinuses producing the phenomenon of the asthmatic paroxysm, probably by lymphatic absorption with extension from the infective focus to the lungs; (3) nasal polypi usually associated with other nasal pathology. All of these patients were operated on by Dr. Fetterolf. Of the group, 5 expressed the opinion that they were cured; 4 have been free of recurrence from 1½ to 3 years; 12 were improved, 7 unimproved.

Of the 5 considering themselves cured, 4 were of the reflex nasal type, 3 had bilateral turbinate hypertrophy, 1 had unilateral hypertrophy with septal contact. The remaining case, which is well at the end of 2 years, had bilateral turbinate hypertrophy and bilateral ethmoiditis.

Of the 12 patients improved, 8 had obstructive nasal lesions; of these, 2 also had sinus disease. One had nasal polypi, and the remaining 3 in this group had extensive multiple sinus infections.

Of the cases unimproved, all but one had extensive disease of the paranasal sinuses. The remaining case had nasal polypi—suggestive evidence at least of sinus infection.

The presentation of the detailed report is offered by the authors as evidence in favor of the opinion that disease of the upper respiratory tract is an important factor in the production of asthma. Furthermore, they believe that their



results show that cure or substantial improvement can confidently be expected from appropriate surgery in asthma of the reflex nasal type. A much less favorable prognosis must be given those in whom there is extensive infection of the paranasal sinuses, particularly if the sphenoid cells are implicated. Sphenoid surgery is far from being a dependable procedure because the closeness of vital structures predisposes to conservatism, and anatomic variations introduce indeterminable factors; also because the already established tendency to tissue hyperplasia predisposes to recurrence of such tissue removed at operation. This, plus reinfection, explains the recurrence of symptoms after variable periods of postoperative improvement.

Either allergy alone, disease of the upper respiratory tract alone, or both, may be the cause of asthma in any given case; therefore, both factors must be investigated.

No case of asthma has been properly studied unless it has been examined with particular reference to the posterior portion of the middle turbinates from the reflex standpoint, and the paranasal sinuses, particularly the sphenoid and maxillaries, from the infectious standpoint.

No method of acquiring information should be neglected, and the examinations should include transillumination, x-ray studies, and several careful examinations with the nasopharyngoscope. Only by the use of this instrument can accurate data be secured about the upper posterior regions of the nose and its accessory cavities.

#### The Interpretation of Skin Tests in the Diagnosis of Bronchial Asthma

Although skin tests constitute our most valuable single aid in diagnosis of human hypersensitiveness, skin reactivity is not proportional to the severity of the clinical picture. This fact, according to Richard A. Kern (Atlantic M. J., 30:290, Feb., 1927), makes it difficult to decide what is a positive reaction. Minimal reactions are often overlooked in the use of the cutaneous method. In these cases an intracutaneous test may be definitely positive, but even with this more delicate method there will be found a number of questionable reactions. That these are at times significant is often proved by a clinical test, exposure to the substance in question producing symptoms and, conversely, relief of symptoms being obtained by avoidance of it.

Another type of reaction that may be easily overlooked is the delayed positive, a case in point being one in which a patient with angioneurotic edema was tested on several occasions with onion protein by both cutaneous and intracutaneous methods. The reaction never appeared in less than 2-3 hours and would increase for as long as 24 hours. If this patient ate onions he would invariably have a severe outbreak of urticaria to the point of frank purpuric lesions.

There have also been cases on record of negative skin reaction in the presence of hypersensitiveness elsewhere in the body. The author has recently reported 4 cases of seasonal hay-fever, one of the patients having seasonal asthma as well, yet with negative skin reactions. Three of these patients were given prophylactic treatment with the pollen most prevalent at the time of their symptoms, and obtained complete relief. The fourth untreated patient had his symptoms as usual. It is conceivable that a similar state

may exist in other types of asthma, and may account for the disease in some patients whose history is typically that of hypersensitiveness but in whom all skin tests are negative.

On the other hand, skin reactivity may be as excessive as to be very confusing. In such patients one must compare the degree of the reaction of the test with that of the control, doing fewer tests at one time and delaying the reading of the reactions for an hour or more, as the traumatic lesions often fade more quickly than the true reactions.

Skin reactivity is often present when there is no clinical manifestation due to substances reacting positively. This is probably explained by the fact that skin tests with food do not duplicate what happens physiologically. Many of our foods are much altered by cooking and are then probably rendered harmless by the process of digestion. Again, patients with no history of hay-fever may give positive reactions to various pollens.

As to the significance of these positive reactions with negative clinical findings there are 2 points to be emphasized: (1) A positive skin reaction does not in itself warrant the assumption that the substance so reacting is actually a cause of the patient's symptoms. Such a conclusion must be supported by clinical proof that exposure to the substance will produce symptoms or that avoidance will bring relief. (2) These positive reactions may help along prophylactic lines. Such individuals must be considered as potential sufferers from allergic disease and should be warned against over exposure to pollens or an elective nasal operation during the pollen season.

Age also plays a part in the variability of skin reactivity, younger individuals showing stronger reactions. It is obvious that skin tests have definite limitations and that to interpret the reactions properly, one must have a full realization of their shortcomings.

#### Ephedrin in Asthma and Hay-Fever

Following a description of this new drug—whose *newness* is modified by the fact that the Chinese have used it therapeutically for 5100 years—and a report on physiologic and clinical experiments, K. K. Chen and Carl F. Schmidt, (J. A. M. A., p. 836, Sept. 11, 1926) present the following comments on its value in asthma and hay-fever.

The use of ephedrin as a substitute for epinephrin in therapeutics is based on the fact that the substances are closely related chemically and physiologically. Ephedrin, while less active physiologically, has the advantage over epinephrin of eliciting more prolonged effects, of being effectively absorbed when taken by mouth, and of being a much more stable substance. Its low toxicity and its occurrence in a common Chinese plant are circumstances favorable to its widespread use, should it be found of value clinically.

The results of clinical trials of ephedrin so far indicate that it will be found to be most useful as a local application to the nose in cases of chronic congestive conditions such as hypertrophic rhinitis and hay-fever. This alone would make it a useful drug.

Of almost equal promise are its effects in asthma. A drug which will control the symptoms entirely, or at least reduce the number of epinephrin injections that are required, and which can be given effectively by mouth, appears to be a real addition to therapeutics. The

precise limitations of ephedrin in asthma are not yet evident, but it seems certain that it will be found useful in many, if not in most, cases.

As a circulatory stimulant, ephedrin has been rather a disappointment. In chronic hypotension it seems to be of little or no value, and in acute circulatory crises it usually fails to work. It is possible that ephedrin will find a place in the treatment of acute crises when the reasons for its usual lack of effect are considered. These are its inability to cause appreciable stimulation of the vasomotor system because it is a weak stimulant and the system is probably already stimulated, and its tendency to depress the heart. If ephedrin is given with epinephrin, ephedrin may prolong the effect of the stronger stimulant. The tendency to cardiac depression can be minimized by improving the coronary circulation by means of epinephrin and saline infusion or transfusion of blood before ephedrin is given. It should be possible, by means of a combination of ephedrin with preliminary infusion of fluid and epinephrin, to secure some beneficial effects from ephedrin in many cases of shock. Ephedrin should not be injected intravenously in cases of profound shock if epinephrin fails to elicit a response, for it can do no good and may do harm. Ephedrin is certainly not to be regarded as a specific for shock. Its actual usefulness remains to be determined clinically.

Ephedrin may prove valuable in the treatment of anaphylaxis and urticaria, and as a respiratory stimulant in poisoning by narcotic drugs. In the latter connection it seems to be more regularly effective and less dangerous than any other single drug in experimental morphin poisoning. Its use in ophthalmoscopic examination should not be lost sight of.

All of the results reported above have been obtained with ephedrin sulphate or hydrochloride, salts of the alkaloid of the Chinese plant, ma huang. There are other alkaloids, isomeric with ephedrin (pseudo-ephedrin, methyl-mydratin) which may differ physiologically. Until a comparative study of these compounds is carefully made, the statements mentioned above can be applied only to ephedrin, obtained from the Chinese plant by the methods already described.

#### **A Survey of the Incidence, Distribution and Facilities for Treatment of Vulvovaginitis in New York City, with Concomitant Sociologic Data**

Vulvovaginitis, from the standpoint of social work, prophylaxis and medical care, presents such a grave problem that a voluntary committee was organized to give special study to this subject in relation to children and to attempt to formulate a program of community action. The report of this committee is presented by its executive secretary, Kathleen Wehrlein (Arch. Ped., 44:243, April, 1927). Its personnel included those who in their social work encountered the serious difficulties created by this disease as it occurs in homes, dispensaries, hospitals, and child-caring institutions. The lack of a clear-cut program of prophylaxis, quarantine, and in fact, the lack of basic knowledge as to the incidence, distribution, and many other phases of the disease, moved the committee to attempt an appraisal of the problems, and to seek a point of departure for a line of action that would enlist all agencies concerned.

Medical information and practice vary widely in the treatment and concept of this disease. A certain reticence and fear on the part of parents

that their children will be identified as suffering from this disease adds greatly to the difficulty in securing the reporting of the disease which is basic in any survey.

In studying available information, cases listed as vulvovaginitis on the records of the various agencies consulted had to be accepted as such, although it soon became apparent that diagnostic standards were not well defined. No separation has been attempted between the gonorrheal and nongonorrheal cases for the reason that this information was impossible to obtain in the majority of cases. There was no agreement among medical men as to the bacteriology of vulvovaginitis nor as to the proper method of identifying the offending organisms. Smear examination shows in the majority of cases such myriads of organisms that the isolated gonococcus is indistinguishable. Furthermore, chronic female discharges are usually negative to gonorrhea.

Age limits for the purpose of this study extended from birth to 12 years. No absolute data as to incidence was obtainable. All cases of gonorrheal vaginitis reported to the Department of Health are filed under "Gonorrhea", without further designation and with no classification as to age. Only 2 hospitals in New York accept vulvovaginitis cases. One has 72 beds which are filled all the time, as are the 10 beds of the other hospital. Only 3 clinics in New York have special vulvovaginitis service. Collectively they care for an average of 370 cases yearly. No reliable data could be obtained from day nurseries. Incidence in custodial institutions and child agencies, while not accurately recorded, was estimated to vary from .02% to 40% of admissions. Public school examinations are of such a general character that no information regarding such a specific trouble is obtainable.

As to sources of infection, 144 records secured from the leading social agencies were carefully analyzed. These confirmed the opinion generally held that poverty is the concomitant factor of this disease. In 15% there was at least one adult in the family with a contemporary gonorrheal infection. To what extent promiscuity was responsible the records gave only meager information. About 5% were the result of incest. Transmission from one child to another was definitely indicated. In one family 5 girls were infected, all developing gonorrheal ophthalmia. Toilet seats were repeatedly given as the source of infection.

Although the treatment of vulvovaginitis cases is in the hands of capable specialists in the hospitals and clinics, there is a total lack of uniformity in the measures prescribed. These include suppositories, irrigations, vaccines, sitz baths, vaginal packs, gauze wicks, diathermy, boric pads, external douches, daily tub baths, Bulgarian sour milk.

Efforts to prevent spread of the disease are limited and unorganized. The Department of Health has no prophylactic program in regard to vulvovaginitis, which this study proves to be not merely an incidental illness but one involving serious aspects. The afflicted child must spend months under treatment and the treatment must be regular. The outlook for the mother who must leave other young children to take this child to the probably distant clinic once or twice a week for 7-8 months is very gloomy and discouraging.

In concluding its report the committee calls



attention to the following deductions gleaned from its investigation: (1) This committee is unable to submit complete statistics on the incidence of gonorrheal vaginitis because reliable figures were not available from the expected sources. (2) Vulvovaginitis is an infection of serious import to female children, and occurs with sufficient frequency to be a definite child-health problem. (3) Its highest incidence and distribution appears to be in homes where filth and unhygienic conditions prevail. (4) No uniform method of treatment has been generally adopted. (5) There is practically no compliance with the regulations of the Department of Health, and it is urged that a stricter enforcement be effected by the department. (6) Physicians are not agreed as to the etiology of vulvovaginitis. (7) There was a unified opinion among institutional heads on the seriousness of this problem. Every possible safeguard is employed to keep vaginitis cases out of institutions for it "spread like wild-fire" throughout the wards. (8) Direct contact (sexual) is responsible for a minimum incidence of this infection. (9) The convalescent institutional facilities are entirely lacking for vaginitis cases. (10) Children with vaginitis are denied admission to hospitals for necessary operations, and are refused care in orphanages. (11) The clinics are not districted, therefore long distances must be traveled by the mother and patient, not residents of the community wherein the clinic is located. (12) The social implications of gonorrheal vaginitis are important and merit vigorous community study. They have been underrated in the past. This survey has shown the need of: (a) social as well as medical adjustment of these patients; (b) the inclusion of gonorrheal vaginitis in public health programs; (c) increased clinic and convalescent facilities for these patients; (d) separating the statistics of gonorrheal vaginitis from adult gonorrheal; (e) scientific bacteriologic and clinical study. (13) In general, the attitude of all physicians interviewed has been that of earnest desire for social, clinical and bacteriologic research work to be done on this infection.

## In Lighter Vein

### Down With the Germs

Visiting Doctor—"How is it, Sambo, that you and your large family keep so healthy?"

Sambo—"Well, suh, Ah tell you: we've done bought one of dose sanitary drinkin' cups, an' we all drink outen it."—Hardware Age.

### Grew Careless

"Yes, I used to be in politics myself. I was dog-catcher in my town for two years, but finally lost my job."

"What was the matter—change of Mayors?"

"Nope. I finally caught the dog."—American Boy.

### Flavor of Sanctity

Little Helen (rejecting medicine)—"I don't want to take the nasty, bitter stuff."

Mother—"But how do you know it's nasty and bitter? You haven't tasted it."

Helen—"You said it would be good for me."—Boston Transcript

## Current Events

### ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION

Washington, D. C., May 16-20, 1927

At the annual session of the American Medical Association in Washington May 16 to 20, there was a registered attendance of 6,273, meaning at least 10,000 visitors to the convention city.

#### OUTSTANDING FEATURES

Among the outstanding features was an address by the President of the United States, Calvin Coolidge, who conferred high praise on the medical profession for its contribution to the social organization. The President and Mrs. Coolidge also held a special reception for physicians, on the White House lawn.

The departments of the national government, including the Army and Navy medical departments, the U. S. Public Health Service and many medical bureaus, especially those of the Department of the Interior, assembled exhibitions for the visiting guests.

#### HOUSE OF DELEGATES

The following statement concerning the proceedings of the House of Delegates is not in any sense complete. A fuller outline has already appeared in *The Journal*, and the complete record will be printed in the official "Proceedings".

At the first meeting of the House of Delegates, May 16, the speaker, Dr. F. C. Warnshuis, urged continued attention to the problems of nursing education and nursing service in the United States. He suggested an attempt to solve the question of the requirements, qualifications and standards for a capable, competent surgeon and a means to aid the public in making such an identification. He also urged state licensure and special hospital legislation as a means for protecting the public against poor and incompetent institutions.

The President of the Association, Dr. Wendell C. Phillips, urged continuous attention to education of the public in matters of health. He suggested a proper system of censorship to safeguard medical publicity. He again recommended consideration of the restrictions placed on physicians in the prescribing of alcoholic liquors.

The president-elect, Dr. Jabez N. Jackson, urged new attention to the problems of medical ethics, and the preparation of a manual which would make clear both to the profession and to the public the intent of the "Principles of Medical Ethics."

The President of the Association appointed a committee, consisting of Drs. Ray Lyman Wilbur, Rock Sleyster, G. E. Follansbee, Harlow Brooks and William Allen Pusey to act on public responsibility, having to do with the relationship of the medical profession to the public.

On recommendation of the Judicial Council, the opinion was adopted that all articles of an educational nature on medical or health subjects intended for the lay press or lay audiences should give expression to the consensus of opinion of the medical profession rather than to personal views, and that such articles should appear preferably under the auspices of the American Medical Association or of one of its component county societies or constituent state associations.

#### REPORT ON MEDICAL EDUCATION

In considering the report of the Council on Medical Education and Hospitals, the House of Dele-

gates adopted the report of its reference committee. This committee considered as overoptimistic the views of the Council that the present medical schools are adequate to supply places for those wishing to enter a medical school. The reference committee believed that the Council on Medical Education might devote more attention to the problems of the supply of physicians and the question of medical care in rural districts, to the preparation of a statement on the defects in the present situation and to similar subjects.

The reference committee considered it necessary that the present curriculum be reduced materially and that any consideration of a new curriculum should give special attention to the training of general practitioners, with brief courses in the more important specialties. The recent decision of the Council to recognize as suitable for internship only hospitals in which there is a minimum percentage of necropsies was approved and recommended.

#### INVESTIGATION OF HEROIN

The reference committee on legislation and public relation requested the Board of Trustees of the American Medical Association to have another investigation of the use of heroin made by the Council on Pharmacy and Chemistry in conjunction with some of the scientific sections.

#### EVALUATION OF REMEDIES

It was recommended that the Association condemn as unwise and futile any attempt to evaluate a therapeutic agent by legislative fiat, referendum, popular vote or any similar method. The conclusion was adopted that such evaluation can be made only by the investigation and decision of experts.

#### DISASTER RELIEF

A consideration of the report of the committee on disaster relief resulted in adoption of a recommendation that the American Medical Association urge constituent associations and component societies that have not already established disaster relief committees to do so as soon as possible.

#### MORTALITY STATISTICS

It was urged, by adoption of a report of the reference committee on hygiene and public health, that attention of the United States Census Bureau be called to the impossibility of comparison of statements on maternal mortality of the various nations and that the bureau be urged to secure a strictly uniform definition of maternal mortality by the bureaus of vital statistics of various nations.

#### COSMETICS

A resolution urging Congress to enact a law to control the manufacture, distribution, sale and commercial use of toilet preparations for preserving and enhancing personal beauty was referred to the Board of Trustees for action.

#### EDUCATION OF SURGEONS

The reference committee on the speaker's address commended the section having to do with the duty of the American Medical Association to standardize and elevate the practice of medicine and surgery within and without hospitals through its own organization, but not through legislative or other agencies.

#### APPOINTMENT OF DELEGATES

The reference committee urged that state societies appoint delegates in time to permit the speaker of the House of Delegates to announce the reference committees 30 days in advance of the

session, so that these committees might give adequate attention to the various reports of officers and councils before the time of the session.

#### HEALTH CONFERENCES

The importance of health conferences was recognized and attempts to reduce duplication of efforts in various fields were encouraged.

#### CONTRACT PRACTICE

The report of the Judicial Council of the American Medical Association to the effect that there were both ethical and unethical contracts possible, and that each contract must be judged on its own merits was approved by the committee and adopted by the House of Delegates.

#### CHARGES FOR SERVICES TO INSURANCE AND INDEMNITY COMPANIES

A resolution to the effect that physicians were not under any obligation to provide information to insurance or indemnity companies unless paid the usual fees charged for similar services to private patients was approved and adopted by the House of Delegates.

#### PLACE OF NEXT ANNUAL MEETING

The Board of Trustees was asked to investigate places for holding the next annual session and to present its approval of two or more cities which, on investigation, have been found to possess ample facilities. The Board of Trustees has authority to change the place of holding the session if for any reason it is deemed advisable.

#### INCOME TAX DEDUCTIONS

A resolution requesting promotion of an amendment to the revenue bill relating to income tax, which gives the individual a right to deduct from his income tax the expenses of medical treatment for himself and family was referred to the Board of Trustees, with the suggestion that they in turn transmit it to constituent state societies for action.

#### NURSING EDUCATION

Reports of the various committees on nursing education were received by the House of Delegates, and it was recommended that the American Medical Association give support in the work of the committee on grading of nursing schools and share in its financial program. The Board of Trustees appropriated the sum of \$5,000 for one year toward this end.

#### THE PHYSICIANS' HOME

A special committee reported on the need of a physicians' home. The committee recommended that the Secretary of the Association be requested to secure full information in regard to what is now being done by the profession for aged and incapacitated physicians, in various states and cities, so that other states or component societies may take measures to afford relief for dependent, worthy physicians, their widows and their orphans who may be in need. It was recommended that the secretary make a report on this matter at the next annual meeting. The committee was convinced that the need for a national home is not sufficient to warrant the American Medical Association in establishing, managing and sustaining a home.

#### COLLABORATION WITH HEALTH OFFICERS

Collaboration between physicians and health officers was urged as the only method of meeting the public health situation for the good of the profession and the public.



### LEGISLATION FOR COÖRDINATING GOVERNMENT HEALTH ACTIVITIES

The House of Delegates reaffirmed its approval in principle of the Parker bill, coördinating the health activities of the federal government under direction of the United States Public Health Service. It also adopted the report of the reference committee recommending approval of the Ransdall bill, appropriating \$10,000,000 to establish a national institute of health under control of the Surgeon-General of the United States Public Health Service.

### DISABLED EMERGENCY MEDICAL OFFICERS

The House of Delegates reaffirmed its favorable action of 1922, requesting passage of the Bursum bill, which relates to the retirement of disabled emergency army medical officers on a parity with all other classes of disabled officers of the World War now on the retired list.

### MEDICINAL LIQUOR

The report of the reference committee of the House of Delegates to the effect that hereafter the House of Delegates shall not pass any resolution pertaining to the therapeutic value of anything and that no committee report empowering any such resolution shall hereafter be presented until it has been considered by the Council on Scientific Assembly and the Council on Pharmacy and Chemistry was adopted. Recommendation was made that the special committee on alcoholic liquors be continued and be directed to coöperate in preparing a bill to be presented to Congress correcting the unfortunate provision of the Volstead Act limiting the amount of alcohol used, and providing such regulations as will permit doctors to prescribe whatever amounts of alcoholic liquors may be needed for their patients, and subject to such reasonable restriction as may be thought wise and best after a conference with the head of the Prohibition Department.

It was also urged that the American Medical Association declare its adherence to the principle that legislative bodies composed of laymen should not enact restrictive laws regulating the administration of any therapeutic agent by physicians legally qualified to practice medicine.

A supplementary report of the Judicial Council recommended that "Every resolution presented relating to the alcohol question shall be referred to the Board of Trustees for investigation." The recommendation was adopted by the House of Delegates.

### CAUSTIC POISONS

The House of Delegates approved the resolution extending to members of Congress the thanks of the American Medical Association for passing the Caustic Poison Act in 1927.

### FORM LETTERS ON PERIODIC PHYSICAL EXAMINATION

A resolution asking the Board of Trustees to prepare approved forms of letters or literature which may be sent out by county medical societies to the public to promote the value of periodic health examinations and information that the examinations can be made and records kept by qualified physicians who are members of the American Medical Association, in this manner helping to circumvent the harmful advertising activities of commercial agencies dealing with periodic health examinations, was endorsed by the reference committee and adopted by the House of Delegates.

### CONTRACEPTION

A resolution recommending the alteration of existing laws, wherever necessary, so that physicians

may legally give contraceptive information to their patients in the regular course of practice was referred to the Board of Trustees of the Association.

### HEALTH HAZARDS IN INDUSTRY

The resolution petitioning Congress to make possible an increase in the personnel and resources of the United States Public Health Service in order that the service may extend its activities in the field of industrial hygiene was referred to the Board of Trustees.

### AMENDMENTS TO THE BY-LAWS

Notices of proposed amendments to the By-Laws: (1) defining the powers of the Judicial Council; (2) defining the legislative powers of the Association and the right of the House of Delegates to expel members or Fellows on recommendation of the Judicial Council; (3) a resolution changing the members of the Council on Medical Education and Hospitals was presented and must lie over to 1928 for action.

### WOMAN'S AUXILIARY

A motion that the House of Delegates request the Board of Trustees to appoint a liaison committee between the American Medical Association and the Woman's Auxiliary was adopted.

### ELECTION OF OFFICERS

In the election of officers, Dr. William S. Thayer of Baltimore was elected President of the Association; Dr. Charles A. Elliott of Chicago, Vice-President; Drs. Olin West, Secretary, and Austin A. Hayden, Treasurer, were reelected, as were also the Speaker, Dr. Frederick C. Warnshuis of Grand Rapids, Mich., and Vice-Speaker, Dr. Allen H. Bunce of Atlanta, and the trustees, Drs. Edward B. Heckel of Pittsburgh and Rock Sleyster of Wauwatosa, Wis.

The president, Dr. Jabez N. Jackson, made the following nominations to appointments on the various councils: For the Judicial Council, Dr. Donald McCrae, Jr., Council Bluffs, Iowa, and Dr. Frank Cregor of Indianapolis, to succeed Dr. Thayer; for the Council on Medical Education and Hospitals, Dr. Emmett P. North, St. Louis; for the Council on Scientific Assembly, Dr. Frank H. Lahey, of Boston. These nominations were confirmed.

## Lay Mirror Reflections

### DENTAL HEALTH SERVICE

(Bulletin No. 19, Carnegie Foundation for the Advancement of Teaching.)

The Bulletin uses the term "health service", having obviously a broader significance than "healing art", to designate collectively all special efforts to maintain or to promote health, to prevent disease, to restore health by treatment and cure of sickness, and to ameliorate the discomfort, distress, and disability of incurable ill-health. Among the most important of such agencies, besides medicine and dentistry, are education for the prevention of disease, public health administration, nursing, and pharmacy.

### Relation Between Medicine and Dentistry

The public suffers when any group engaged in health service belittles the honorable efforts of another. In North America, dentistry has been practiced primarily as a mechanical art concerned chiefly with measures of repair, and

has not appealed to the imagination or interest of medicine. At most medical schools there is little or no instruction on dental disorders, and the students acquire the prevailing medical indifference to dentistry. At dental schools the students receive inadequate instruction in oral medicine. "Antagonism between medicine and dentistry cannot be explained on any basis of public interest or advantage and has no justification in any sentiments that are worthy of respect, for both professions are agencies for health service and cannot render it faithfully on any other conditions than those of earnest and effective coöperation." With growing understanding that dentistry is primarily health service, these traditional disharmonies should rapidly be replaced by mutual respect and helpfulness in the interest of better service for the patient.

#### Dentistry Sets a Useful Example for Medicine

Although medicine has not been interested in oral health-service, dentistry has set an example that medicine would do well to follow. For many years dentists have systematically encouraged their patients to submit to periodic examinations for the detection and treatment of dental disorders in their incipency and for the repeated application of measures intended to prevent or delay the development of disease. The importance of this procedure for children, in whom most dental abnormalities and defects may be arrested, cured, or corrected, cannot be overestimated. These precautionary efforts exemplify an ideal or health service—to keep people well—that has not yet appealed strongly to the average practitioner of medicine, who, manifesting little concern about prevention of illness among his private patients, seldom gives them personal advisory health-service when they are not sick.

#### LAW OR LIFE

(Editorial in the Summit (N. J.) Herald,  
May 20, 1927.)

One of the strangest of all the strange complications that have arisen through the attempt to enforce the Prohibition Amendment in accordance with an extreme interpretation is just now to be witnessed in the State of Indiana. Not content with the Volstead Act, which arbitrarily limits the amount of alcohol that may be medicinally prescribed by physicians, the Anti-Saloon League has secured there the enactment of a State law—such as it hopes presently to have nationally enacted by Congress—absolutely prohibiting the use of alcoholic liquors as medicine. Recently the wife of the Governor of the State was dangerously ill, and her physician declared that the best hope of saving her life was in the use of small doses of whiskey; which the law forbade him to prescribe or to supply. At that the Governor defied the law, sought a trustworthy bootlegger, got some good whiskey, and saved his wife's life. Also, three sons of the Attorney-General were stricken with typhoid fever and pneumonia, and the physician said that they should have whiskey in medicinal doses. Whereupon their father, the chief law officer of the State, defied the law, procured whiskey from some law-breaking source and saved his children from death.

Thus we have the spectacle of the Chief Ex-

ecutive and the chief law officer of the State deliberately breaking their oaths of office, and breaking the law of the State, in order to save the lives of those dependent upon them. Did they do right? Or should they be impeached and punished as malefactors? Opinions differ. The great majority who have expressed themselves, including university presidents, jurists, legislators, and clergymen, declare that the men did exactly right, that human life has a sanctity above any man-made law, and that "a law which takes out of the hands of scientific medical men an instrument for saving human life, is both stupid and vicious". On the other hand, one of the most conspicuous clergymen of New York, who poses as the champion of Fundamentalism, and who served as the reporter of the loathsome Snyder-Gray murder trial for a sensational newspaper, is reported as saying that "Both the Governor and the Attorney-General did absolutely wrong. Both should have permitted the members of their families to die and have died themselves, rather than violate their oath of office". He is obviously of the same mind as another noted clergyman of the same church who, years ago, when his wife was suffering excruciating agony and was in danger of death, and he was told that a little wine would ease the pain and probably save her life, replied "No! if her life depends upon drinking wine, let her die."

We cannot believe that such a state of affairs as that in Indiana can permanently continue. It must, in the name of common humanity and common sense be radically amended in some way. And we cannot believe that the needed change will be made by unreasoning fanatics on either side.

#### ANNUAL MEETING MEDICAL MILK COMMISSION

The American Association of Medical Milk Commissions and the Certified Milk Producers' Association of America, held their Annual Meeting at the Willard Hotel, Washington, D. C., May 16 and 17, 1927.

An attendance of over 200 members made the occasion most interesting and profitable. Sixteen papers of exceptional interest were read and discussed, covering a wide field and embracing subjects of interest to the physician, the dairyman and the public at large.

At these meetings a certified milk contest is held and this year there were entries from 40 dairies stretching from New England to California. The first 3 places went to California dairies with scores of 99.5—99.3—99.2 respectively, and the fourth place went to the Province Line Dairy at Princeton, N. J., Joseph W. Miller, owner, with a score of 98.7. This dairy is one of the two certified by the Mercer County Medical Milk Commission No. 1 of Princeton, N. J.

The officers elected for the ensuing year were: President, R. Ralph Ferguson, M.D., Chicago, Ill.; Secretary, Harris Moak, M.D., Brooklyn, N.Y.; Member of the Council, Prof. J. Howard Brown, of Baltimore, who was the retiring president.

The meeting next year will be held in Cleveland.

W. G. Schauffler, M.D., Secretary,  
Mercer Co. Med. Milk Com. No. 1.



## County Society Reports

### BERGEN COUNTY

Spencer T. Snedecor, M.D., Reporter

The last meeting of the Bergen County Society before the summer recess was held on Tuesday evening, June 14, at the Hackensack Hospital. The treasurer, Dr. Michael Sarla, reported \$647 in the treasury with only 2 delinquents with dues unpaid.

Dr. F. C. McCormick reported for the delegates to the State meeting. At least 15 Bergen County men were present, including Drs. Bell, G. W. Finke, Freeland, McCormick, Proctor, Pitkin, Payne, Morrow, Corn, Snedecor, Gilady, Knapp, Levitas, Knox and Clarke. Many wives were also present. The Bergen delegation took an active part in all the sessions. Two men from this county society were on the scientific program.

The following doctors were elected into membership: Margaret M. Wurts, Englewood; James A. Paradise, Closter; Charles W. Parsells, Ramsey; William M. Fielding, Allendale; Percy V. Fisher, Frederick; William Gilbert and Chester T. Stone, of Ridgewood.

A committee of 3 members was appointed to confer with Dr. Andrew F. McBride in regard to placing a referee for compensation cases in Bergen County. The Society feels that the industrial work in this county is so large now that it needs a more convenient place for the doctors to appear concerning appeal of their cases. At present such hearings are held in Paterson.

The scientific program was presented by the Staff of the Hackensack Hospital. Dr. George W. Finke read a short paper on "Meckel's Diverticulitis". This fetal remnant was first described by a son of Meckel, famous anatomist of the seventeenth century. It should be obliterated by the sixth week in utero, but that does not occur in about 5 out of each 1000 persons. When congested, its symptoms greatly resemble acute appendicitis and diagnosis is seldom made before operation. Many cases of intestinal obstruction, 6% of all, are caused by disease of Meckel's diverticulum. Dr. Finke reviewed 3 cases that had occurred in the hospital within the last 6 months, 1 simulating appendicitis, another abscess formation, and the third obstruction. In the discussion, Dr. F. C. McCormick mentioned a case of a child in whom the diagnosis was made before operation, on the history of frequent bleeding from the umbilicus when a baby.

Dr. Spencer T. Snedecor gave an illustrated lecture on the "Work of the Department of Physical Therapy". His photographs, taken on standard moving picture film, were projected as *stills*, one following the other but not moving continuously. The pictures showed all the types of equipment used in the department, from heat lamps and diathermy machines to ultra-violet lamps and whirlpool baths. In addition, the uses of each one of these different agents was shown in typical instances, as for examples: diathermy in the treatment of arthritis, a large heat lamp on a sprained back, ultra-violet radiation for a case of rickets, galvanic sinusoidal current in infantile paralysis, etc.

With the presentation of cases Dr. David Corn showed a woman convalescing after a rupture of the uterus. While being attended in labor by a midwife, this woman, para VII, suffered a

spontaneous rupture of the uterus. That diagnosis was made on admission to the hospital by 2 signs, fetal parts too close under the abdominal wall and a palpable ridge in the uterus. The patient was in extreme collapse but revived after hysterectomy with simultaneous transfusion. The fetus was dead. The specimen showed a rent 6 in. long in the lower uterine segment. Dr. Corn then gave a short talk on the causes of rupture of the uterus and the diagnostic signs.

Dr. George Finke closed the program by presenting a young man of 22 from whom an osteoma the size of a grapefruit had been removed. The tumor was attached to the ascending ramus of the pubis and the only symptoms were of urinary obstruction. The differential diagnosis of osteochondroma, osteosarcoma and simple osteoma was confirmed by x-rays in favor of osteoma. The operation was severe, necessitating both suprapubic and perineal incisions.

### BURLINGTON COUNTY

R. I. Downs, M. D., Reporter.

The regular meeting of the Burlington County Medical Society was held Thursday, June 16, 1927, at Burlington, New Jersey. A short business meeting was held, during which time an application for membership from Dr. R. E. Halderman, of Mt. Holly, was read by the Secretary and given to the Board of Censors for consideration.

On this occasion, the society was the guest at dinner of the Workers' Conference of the New Jersey Tuberculosis League, Inc. The affair was held at 6 p. m., at St. Mary's Hall, with about 120 people present, friends, members of the society, and members of the Woman's Auxiliary to the Burlington County Medical Society.

During the repast, Mr. Ashbrook led in the singing of popular songs; the words being especially fitting to tubercular activities. Old time songs followed, arising spontaneously and producing a general feeling of good fellowship.

Dr. Newcombe, the newly elected President of the State Tuberculosis League, spoke for the undernourished child. He hoped that a permanent site for the building of a camp for these children could be arranged for at this conference. He introduced as the speaker for this occasion Dr. Isadore Kaufman, Assistant Medical Director of Phipps Institute, and Associate Professor of Medicine of the University of Pennsylvania, who took for his subject, "Early Diagnosis of Pulmonary Tuberculosis".

Dr. Kaufman started by saying that we should not be unduly alarmed because of the slight increase in the 1926 death rate for this county. The death rates in most large cities of the United States have also shown an increase in 1926, which means that efforts to fight the disease must be augmented. The principal method is by use of the sanatorium, the preventorium and clinics. The work of the association is to teach the nurses and doctors to present patients at clinics or refer them to their family physicians; to have all contact cases, especially children, examined and reexamined at least every 6 months. The detection of early cases is made chiefly by the history of the individual, history of contact, x-ray examination and tuberculin test. Tuberculosis may be suspected when there is a cough of 8 weeks' duration, chronic hoarseness, chronic head colds, loss of weight and strength, constant tired feeling, rapid pulse, and slight

increase of temperature with no definite cause. Statistics show that when there is no definite attributable cause observed, 95% of blood spitting is due to tuberculosis, 95% of wet pleurisy is tuberculosis, and 70% of rectal disease is in a tuberculous patient. The average life of a person with a positive sputum is 5 years. Diagnosis should be made regardless of the absence of a positive sputum or râles. Seek the latent cases, those that have no symptoms or physical signs, and tuberculosis can be cured.

## HUDSON COUNTY

### Osler Clinical Society

M. I. Marshak, M. D., Reporter.

The Osler Clinical Society met on Wednesday, May 18, at the Union League Club, Jersey City, with Dr. A. E. Jaffin presiding.

Dr. Louis Pyle presented the specimen of a 14 pound ovarian cystic tumor removed from a woman aged 72 years. The symptoms were of 3 years duration and consisted of enlargement of the abdomen, edema of the legs, constipation, dyspnea on exertion, with very little pain. The operation was performed under spinal anesthesia. A discussion of the value of and the dangers of spinal anesthesia followed this presentation.

Dr. Barishaw read the histories and showed x-ray plates of 2 cases of unusual pulmonary pathology. One was a case of bronchopneumonia which closely simulated pulmonary miliary tuberculosis, and which cleared up in about 2 weeks. The second case was one of generalized miliary tuberculosis with a pronounced pulmonary picture. In the discussion, the differences in the roentgenograms was pointed out. The plate of the case of bronchopneumonia showed clear spaces above the second ribs on both sides; that of the miliary tuberculosis, though it showed shadows well scattered throughout both lungs, was heavily marked above these ribs.

Dr. A. E. Jaffin showed some plates in which gall-stones were readily visualized.

Dr. W. G. Doran read the paper of the evening on "Hip Disease in Children". This paper was a monograph of over 35 typewritten pages, which will be published in the Journal of the State Society at an early date. The section on early diagnosis is so well given that I have taken the liberty of incorporating it in this report.

"Permit me therefore to give to you, as a narration, the average story that I hear when the symptomatology is reviewed. Master Johnny, for instance, has been a rugged little chap, physically active, engages in the usual street games with all the enthusiasm that one would expect of a healthy lad, never having any serious difficulty in performing the stunts that the other lads do, spends most of his hours after school romping with other boys and never having a complaint or ailment for his family; at night he is off to bed thoroughly tired and usually sleeps and eats as one would expect every healthy youngster to do. But, gradually, Master Johnny appears to lose interest in the games he formerly played, he is not inclined to wander far from his doorstep, he has not the boyish enthusiasm he formerly had, and, finally, begins to show by his general demeanor and facial expression that every thing is not quite right—and yet there is no complaint from Johnny. This may continue for a period of days or a week, and finally his mother, for it is usually the mother who notices these

changes in the disposition of the child, will begin to wonder what has happened to Johnny and her inquiries regarding his health are usually passed off with evasive or unsatisfactory answers. Finally, she notices that there is something peculiar about the way he walks. He does not seem to skip along as he used to; he seems to be unusually careful when he is going up and down stairs, and she notices that he walks with a slight limp as he goes off to school in the morning; and at noon as she watches him returning he appears to be all right. Again, at night, when he is coming in to his supper he seems to be unusually fatigued and she is again convinced that he is walking with a limp. She naturally thinks there is something wrong with his shoes or recalls that he hurt his foot, or any one of a thousand things that might run through her mind, and she questions him again very carefully, and this time perhaps Johnny admits that his leg is a little sore; and that he does not like to jump off the stoop, and when he does it often hurts, but is not quite sure where it hurts—sometimes about the hip, sometimes about the knee, but at least he is sure there is something wrong. His mother notices that at night he does not sleep as soundly as he formerly did; he is inclined to toss around in bed; he is quite restless, and yet as far as she can see there is no particular cause that she can explain. This state of affairs may go on for several days and still Johnny does not get better and his mother begins to think that perhaps after all he has some trouble. There is something wrong that cannot be accounted for by the usual bumps and bruises that children are accustomed to, and with the uncertainty of the situation dawning upon her she mentions it to Johnny's father when he comes home at night. There usually follows a family conference, with the result that no explanation can be given that appears satisfactory, and then, if the youngster is fortunate, he is brought to the doctor to find out what is the matter with him. Right here the doctor often meets with a very difficult problem. After completing a conscientious and careful examination he often cannot find anything very definite about Johnny's walk. Possibly Johnny has not been prepared to undergo an examination, and he naturally has some fear of the doctor, and often the child is not inclined to demonstrate the things that his mother has observed. He won't do the stunts or tricks when he is asked to, and the doctor finds considerable difficulty in getting any satisfactory demonstration of what the mother has been observing. He then turns to the history that the mother gives and there is not very much there that will help him. When he examines the child he finds that the embarrassment and the excitement that the child experiences will often mask the early signs that may be lurking about the hip. And so, in a final effort to find out what is wrong he suggests an x-ray examination. This having been done he is quite discouraged with the report "hip negative to pathology". He feels, perhaps, this is only one of the customary bruises that a child receives and he suggests that the mother keep the lad under observation, makes some suggestions about local treatment and advises that the mother bring Johnny back again in a week or two. This she is most certain to do, and yet the case remains a puzzle. Things are certainly coming to a climax. There is something wrong. Johnny knows it, his mother knows it, and the doctor himself is conscious of the fact and still there is so little that one can point to or demon-



strate that would offer any reasonable explanation for Johnny's complaint."

"Now let me stress the fact that this average story is not far from being the general story. There is doubt mingled with anxiety all through the early history and progress of the case."

Drs. M. Frank, H. J. Perlberg, H. T. Von Deesent, M. Shapiro, M. I. Marshak, J. L. Rosenstein and W. G. Doran discussed the paper.

In executive session, the Executive Committee reported the following nominations for officers for the ensuing year: President, D. Miner; Vice-President, J. L. Rosenstein; Secretary, H. J. Perlberg; Treasurer, C. B. Kelley; Trustees for 3 years, G. K. Dickinson and C. V. Niemeyer; Trustee for 1 year to succeed D. Miner, Harold Franklin. The report was received and the nominees unanimously elected.

MORRIS COUNTY

Marcus A. Curry, M. D., Reporter.

The fourth quarterly meeting of the year, of the Morris County Medical Society, was held on the evening of Monday, June 13, at the Community Club in Morristown. The formal meeting was preceded by an appetizing dinner prepared and served with much credit to the Club and delight to the diners.

President Plume presided over a gathering of 26 members, which considering the Lindbergh counter attraction in New York, may be passed as a rather reasonable attendance. Minutes of the previous quarterly meeting were read and approved and the activities of the Executive Committee were reported by Secretary Lathrope.

Among the items reported by the Secretary were:

(1) That at a regular meeting of the Executive Committee it was unanimously resolved that 4 members of the committee constitute a quorum.

(2) That the secretary received word from 1 annual delegate and 2 alternate delegates that they would not be able to attend the annual meeting of the State Society and the third alternate reported as uncertain of attendance. To fill the vacancies the committee elected Dr. Lathrope as delegate and Dr. Mills as alternate.

(3) That it was reported that the Society was entitled to only 2 delegates, because only 53 members had paid dues; so that the fact that dues had not been paid with the regularity of previous years had cut down our delegates from 3 to 2. Further commenting that the bills are sent out the first of September and it doesn't seem that there is a whole lot of excuse for waiting 6 months to pay.

(4) That a Nominating Committee was appointed by the President; consisting of Drs. Glazebrook, McMahon and Summers, to make up a slate of officers for the coming year, to be voted on at the September annual meeting, without abridging the right of any member to make nominations from the floor.

Secretary Lathrope, by leave of the President, discussed the public meeting which was held in Washington Hall on April 19, stressing the meagre attendance and what it meant; and inviting suggestions from members as to ways and means of making these special meetings more popular, as those who did attend were amply repaid by

the program put on by Dr. Reik on Periodic Health Examinations, illustrated by motion pictures, and Dr. Taylor, President of the National Association for the Prevention and Control of Cancer.

Treasurer Reed made a highly satisfactory report of his financial stewardship.

Two new members were admitted to the Society; Dr. W. Blake Gibb, on transfer from Rockland County, New York, and Dr. George J. Young by unanimous vote.

The Nominating Committee presented the following recommendation of officers for the ensuing year: President, Samuel C. Haven; Vice-President, L. L. Mial; Secretary, George H. Lathrope; Reporter, Marcus A. Curry; Treasurer, F. Grendon Reed; Historian, Henry W. Kice.

Additional members of the Executive Committee: Drs. Plume, Peck and Glazebrook.

Delegates to annual meeting: Drs. Glazebrook, Lathrope and McMahon.

Alternate Delegates: Drs. Spencer, Plume and Sherman.

The scientific part of the meeting was a "Symposium on Acute Infections of the Middle Ear" presented and read as follows: "Acute Otitis Media", Dr. Alvan Spencer; "Mastoiditis", Dr. Raymond Mathews; "Complications of Mastoiditis", Dr. E. Blair Sutphen.

The papers were well presented and evidenced unmistakable pains in their preparation; creditable alike to their authors and to the Society in being able to produce home talent of such exceptional merit. The papers will be available for publication in the Journal.

Dr. Mial opened the discussion in an able manner, and Drs. Gibb, Haven and Glazebrook entered into the very interesting sequel, and all points raised were responded to by the authors of the papers. Much interest was manifested throughout the entire program.

Dr. Costello presented a very lucid word picture of the proceedings at the annual meeting of the State Society at Atlantic City, which was gratifying to the members and indicated progress and improvements in many directions; emphasizing the importance of as many members as possible attending the annual meetings; stressing the growth of the State Journal; stating that the scientific side and the papers were very good; that the entertainment for the ladies and guests was well planned and carried out; that recognition for Morris County is promising for next year; pressing the point that the meeting was carried on in splendid shape; and suggesting that the secretary of the county society be instructed to write a letter extolling Dr. Morrison for the way he is conducting the business of the State Society.

At the conclusion of Dr. Costello's splendid report, action was taken and it was unanimously voted that the Secretary write a letter in commendation of the activities of Secretary Morrison of the State Society.

The annual meeting in September will be held at the State Hospital at Greystone Park, on invitation of Superintendent Curry and the Board of Managers of that institution.

## SOMERSET COUNTY

Lancelot Ely, M. D., Reporter.

At a special meeting of the Somerset County Medical Society held on June 5, 1927, at the Court House, Somerville, N. J., to take action regarding the death of Dr. C. R. P. Fisher, the following minute was adopted:

It was with profound sorrow that the members of this Society learned of the death of their recent member and co-worker. Dr. Fisher had been an active worker in this Society as long as any of its members can recall. During this time he faithfully performed every duty assigned to him. From time to time he filled not only the highest but the lowest offices of this society with faithfulness and dignity. To him we looked as counsellor and friend, and we wish to record our appreciation of these facts. We resolve that this minute be spread on the minutes of this society, published in the Journal of the New Jersey State Medical Society, in the local papers, and that a copy be sent to the bereaved family.

## UNION COUNTY

## Summit Medical Society

W. J. Lawson, M. D., Secretary.

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines, on Tuesday, May 31, 1927, at 8:30 p. m., with the Vice-President, Dr. Morris, in the chair.

Present: Drs. Bowles, Burritt, Byington, Clark, Hallock, Johnston, Keeney, Lamson, Meeker, Milligan, Moister, Morris, Praeger, Reiter, Smalley, Tidaback and Wolfe, and Drs. Ford and Dedrick of Summit as guests. Minutes read and approved. Treasurer's report read and placed on file. Election of officers for the year 1927-1928 resulted as follows: President, Watson B. Morris; Vice-President, F. I. Krauss; Secretary, W. J. Lamson.

The paper of the evening was read by Dr. Clark, on the subject of "Problems in Health Examinations". He discussed the subject of weight-height as affecting mortality. Tall thin men have a much better mortality than tall heavy men; boys and girls are better risks if somewhat overweight; 70% of diabetics are 15% overweight; Bright's disease and cardiac disease more prevalent in overweights. The normal blood-pressure, based on 65,000 lives, is much less than usually considered by the practitioner; 15 points above the average marks the beginning of a higher mortality rate. Under 40 years of age diastolic should not be more than 90; over 40 not more than 95. Insurance Companies are very liberal with low B. P. Nervous hypertension calls for further readings.

A faint trace of albumin, either intermittent or constant, in early years, is not incompatible with average mortality. Quantitative tests are gradually replacing the cruder methods of estimation hitherto used.

Dr. Reiter discussed the different heart conditions affecting mortality. Pulmonic murmurs are generally considered functional, while aortic murmurs are organic. Mitral regurgitation gives an average mortality of 181. A persistent rapid pulse (over 90) gives higher mortality. Insurance companies accept a pulse rate of from 56 to 89 without question.

## Communications

## A VISIT TO U. S. S. "RELIEF"

(Letter from John Hammond Bradshaw, M.D., F.A.C.S., Orange, New Jersey.)

It is not every day that one can see a hospital afloat. The "Relief" is interesting because "she is the first ship designed and built expressly for the transportation of sick and wounded men." While accompanying the battle fleet to battle, she does not fight; she carries no guns. Her errand is an errand of mercy. Designed by the Navy Department, she was built in the Philadelphia Navy Yard, and commissioned in 1920. Her length is 484 feet, beam 62 feet, and displacement 9750 tons. Her speed is over 16 knots. She has capacity for 515 bed patients. The beds are distributed in 14 wards so that segregation or isolation of contagious or infectious and critical cases can be secured. She has 29 officers, 12 trained nurses, and 366 enlisted men.

At the recent visit of the fleet to New York waters, the "Relief" was anchored off 125th Street, New York City. Each afternoon boats ran hourly to take visitors to see the ship. This was much appreciated by the public; attest, 700 visitors made this inspection only the day before my visit. Now everything that a modern hospital can boast of may be found on this ship, and any hospital would be proud of her equipment and appointments as well as her personnel.

As we were ambulatory arrivals, we mounted the companionway conducting us from the small boat up her high gleaming white sides to her immaculate decks. If, however, we had been wounded or sick sailors, we would have entered through a large door nearer the surface of the water, where electric elevators would have conveyed our stretchers to one of the large sunny wards each holding about 30 beds. Of course the decks of these wards are covered with "battleship linoleum". The ward beds constructed of white enamelled tubular metal are arranged in pairs. There is only about 3 feet of space between the pairs. The beds when not in use can be hooked up to give greater space. This idea could be used in the wards of land hospitals, for there is one thing about a hospital afloat; everything is compact, shipshape and in shipshape order. Economy of space is a necessity and is here made a science. To a landlubber surgeon, this holds many suggestions. For, after all, is it not economy as well as efficiency that we strive to attain? One here does not walk a mile through a long corridor or send in a hurry for something on the thirteenth floor.

The operating room on the main deck is covered with a dome that looks something like a turret. But instead of its openings for the guns, here we find about a hundred skylights giving at a distance, in the outer aspect, a likeness to the top of a huge pepper pot. But any hospital would be glad to have this room. Situated forward, it extends the entire beam of the ship and nestled about it, in close proximity, are the modern sterilizing, dressing, instrument, anesthetizing, and doctors' wash rooms. The prevailing color is white and the floor is of white tile. Even in times of peace they average almost a dozen operations a day, for this ship does practically all the surgery for the fleet. Here we find 2 surgeons, having the rank and pay of Commander of the Navy. They are in full and absolute charge, with a large number of assistant surgeons working under them. When I was there



I saw in sight no women trained nurses, although there are 12 on the ship. There are, however, 119 trained men who act as nurses. These men are enlisted sailors, who have taken their 3 years' course of nursing in a regular training school run by the Navy Department.

The operating rooms have complete equipment for purifying the air and for controlling the temperature. How many land hospitals can say as much?

In the bow of the ship we find a cozy library with mahogany glass-enclosed bookcases. There are no deep-seated easy chairs or over-stuffed sofas, but the bench seats are arranged as around a mess table. The room is attractive and well lighted. As I sat at one of these tables (writing these notes), a lusty sailor played rag-time or jazz on a lusty piano at one end of the room. This paper may therefore be syncopated in its tune and style!

I doubt if many things were omitted from my visit. In company with many others, we went from stem to stern and from keel to bridge. We found the laundry hotter than the great boiler-room; but no cleaner, as the oil-burning furnaces need really an engineer instead of a stoker. The engine-room looks like a hopeless tangle of miscellaneous pipes and wheels, pistons and indicators, and other machinery, in seeming confusion and chaos, but my 18-year old boy guide could rattle off the names and uses of everything in sight.

The barber-shop was in full operation and a hair-cut and shave did not cost the usual dollar-bill. One could find great entertainment in the carpenter-shop and here I believe occupational therapy is a feature. The doctor in charge of the x-ray department told me with some pride that there were few of the newer appliances that they did not have; and in these days of ray development, this implies activity. In the dental rooms one sees scores of achers plowed and harrowed and uprooted, and here also you can be properly fitted out with naturalized foreigners. I don't think I ever saw better equipment for eye, nose and throat work than I saw here, and I have visited the large metropolitan clinics where this work is a specialty. The kitchens and the bake-shop were all busy, run by young men. Tiers upon tiers of fragrant freshly baked bread made me ask my attendant if the food was satisfactory, and he replied that it "couldn't be beat."

Before I left the ship I stood on the bridge and placed my hand on the small lever that steers and controls so many tons on the ship. It is about the size of a Ford car gas control and could be moved with one finger. Guided by the gyroscope compass, one could readily understand how the brain and hand of man so safely control a floating hospital and bring security and health to thousands of the sailors of the great and wonderful navy of the United States of America.

### TUBERCULOSIS IN 1926

M. J. Fine, M.D., Director,

Tuberculosis Division, Newark Dept. of Health.

#### Mortality 91.5

The tuberculosis death rate in Newark was slightly higher in 1926, being 91.5 per 100,000 as compared with 83.4 last year. For 10 consecutive years, however, the mortality rate had been forced downward, starting at 215.8 in 1915. Furthermore, it is lower than any rates prior to 1924 and would a few years ago have been con-

sidered as ideal but improbable of being reached. The mortality rates in most of the large cities of the country showed an increase last year.

We attribute the increase of mortality to a great many factors. First and foremost, the lack of facilities for placing in institutions patients whose homes were such that their condition became worse and affected the mortality rate accordingly. Secondly, patients have not been consulting physicians as early as they should. They underestimate the symptoms of incipient tuberculosis so that in many instances the condition is far advanced when first seen by the physician, and the opportunity for cure is diminished. Third, the wages of the worker have been excellent, causing him to continue making money and to defer sanatorium treatment until too late. The feeling of prosperity and desire for comforts and luxuries have of course made it more difficult for the worker to stop and take treatment.

The general increase this year throughout all the cities would seem to indicate still another undetermined cause. With the increase in mortality there was also an increased morbidity. The belief that insufficient bed capacity affected the mortality and morbidity is borne out by the age incidence. From 1 to 14 years of age there were 39 deaths and 119 cases reported, as compared with 39 deaths and 150 cases the year before. Bed facilities for patients of this age have not changed for a number of years, whereas in the adult class in which most of the increase occurred there has been an actual decrease in beds during the past few years.

In 1926, there were 1014 cases, as compared with 872 in 1925, an increase of 142. Some of this increase is probably due to the fact that more people are heeding the continuous campaign by all health agencies to have a complete physical examination at least once each year. If this is true, the reporting of more cases is a hopeful sign rather than otherwise, inasmuch as early detection is the greatest weapon against mortality.

### Tuberculosis Among the Colored

The extremely high incidence of cases and deaths among the colored people was again clearly shown by the fact that there were 229 cases and 97 deaths, compared with 174 cases and 88 deaths last year, and 140 cases and 76 deaths in 1924. This is due in part to greater susceptibility to infection and in part to improper personal hygiene and housing. Many of these people come from the plantation or squalid village sections of the warm southern states and know little about the value of fresh air. The rates, based on a population of 27,000, show 848 per 100,000 morbidity, compared with 157 for whites, and a mortality of 359 compared with 74.1 for whites; in other words, their mortality is almost 5 times as high as that among white people. While the efforts of the colored nurse and physician, as well as the special colored clinics, are unquestionably of great value, the problem will continue as long as our colored population is to such a great extent transient and the standards of the southern states so low.

### Hospital and Sanatorium Beds

In our last annual report, I stated that a falling tuberculosis death rate, which we had been enjoying for 8 consecutive years, was not sufficient excuse for any reduction in beds, either for severe or for incipient cases. No improvement has been made, the facilities being actually

less than a few years ago, and I feel justified in claiming this to be at least in part responsible for the increased mortality this year. The county authorities are contemplating increasing facilities at Verona but this seems to be a program of such elaborate nature as to make considerable delay certain. In my opinion, the erection of a few inexpensive but fireproof shacks, similar to those used in sanatoria in the Adirondacks, with even more severe climatic conditions, sufficient to accommodate about 100 additional patients, would be the best, quickest and most economic plan. The number of patients at the institution would certainly not be so great but that they could be graded by stages, using the present building for far advanced bed patients and some of the moderately advanced, and using the shacks for the balance of the moderately advanced and the early stage types. Immediate relief is absolutely necessary, even if only sufficient to care for the severe cases at present crowding every available bed at our City Hospital. The shortage is such that after a patient applies to the sanatorium, there is such delay that by the time his name is reached we find that he has become an advanced case, has decided against taking advantage of the treatment, or in some cases has died; at all events, his condition has rarely shown improvement, and too often he has become discouraged and has been careless to the extent of spreading infection to relatives and intimate contacts.

#### Clinics

There was a material increase in the number of clinic examinations; 22,039 as compared with 18,357 last year. This was principally due to the greater number of food handler examinations. Examinations for entrance to children's camps were much fewer; 1551 as compared with 2063 in 1925. This would seem to be due to somewhat better home conditions among the working classes. The detection value of our clinics is well illustrated by the fact that of the 1014 cases reported during the year, 233 were discovered at our clinic and 199 at the City Hospital. Of these 424, 110, or over 25%, applied and were admitted to Verona. Of the 506 reported by physicians, only 73 applied, or less than 15%.

#### Food Handlers

The increase in the food handler examinations, 5045 more than last year, was principally due to the addition of confectioners and workers in food manufacturing establishments to those required by the Department to be physically examined. It is planned to expand this field from time to time to include every type of food handler in the city. This is not only an excellent preventive measure from the standpoint of food protection, but is a big step in the right direction toward educating the public in the value of periodic health examinations. During the past year, 1148 persons were required to be reexamined having suspicious symptoms, colds, etc. In cases of this kind, when definite diagnosis cannot be made, temporary cards are given for one month at the end of which time they must be reexamined, thus enabling the Department to keep such persons under close observation.

During the year, 34 positive cases of venereal disease and 9 of tuberculosis were found, and these persons were stopped from handling food.

#### Home Visits and Follow-up Work

During the year, 15,690 home visits were made by our staff of nurses, to cases reported by private physicians, ambulatory and bed-ridden patients, cases waiting for admission to the sanatorium and others discharged from institutions. This was a decrease from 18,332 last year, probably due to the fact that there were more advanced cases to be visited, in which fewer visits are made but of longer duration. In addition to this, one nurse spent her entire time on the sanatorium cases. A close follow-up of those discharged from Glen Gardner, Verona and Farmingdale Preventorium was carried out, instructions being given in hygiene, sanitation and domestic science as to the preparation of food necessary for tuberculous patients and care in preventing infection of others. The sanatorium is regularly advised concerning the patients' physical condition, work, earning capacity and social conditions. Very few patients are lost sight of. The clinic physicians make home visits to bed patients to make positive diagnosis and send same to hospital; 156 visits having been made during the year.

#### Social Problem

The social problem so closely allied with tuberculosis is as acute as ever, especially when the principal member of the family is afflicted with the disease; causing a lack of financial aid and often depriving the family of actual food. A great number of agencies are trying to help the patient and make him comfortable in the sanatorium by taking care of his family. Personally, I feel that if a pension could be established for the relief of the members of the families of those afflicted with tuberculosis, so that the patient could go to the sanatorium without the worry of his family on his mind, the patient would have a better opportunity to profit by the treatment.

#### Remarks

Tuberculosis is not only a problem of mortality and sickness but, as everyone realizes, an economic one as well, due to the long drawn out nature of the illness. Various plans have been advocated to care for this phase of the matter and none without some virtue. One of the best is that a state allowance be made for dependents of wage earners who need sanatorium treatment. I feel, however, that a better plan would be the establishment of a colony where patients could be provided with the proper type of light work as a means of earning some income, either for their dependents or the county, keep their minds occupied with other than morbid thoughts, and train them to do something which would enable them to earn a livelihood after they return home. This would also make it possible to clearly demonstrate whether or not a patient can return to his former occupation without the relapse which so often happens without this advice or knowledge.

A further arrangement of great value would be the interesting of some philanthropic business men to the extent of giving employment to discharged patients from sanatorium or colony, and at the same time coöperating with the Health Department, private physician and patient, by requiring periodic examinations and proper habits. Such arrangement would reduce the great number of chronic or repeat sanatorium pa-



tients who improve while there, return to their work, get run down and return again to the sanatorium, each return finding them in a more advanced stage of the disease. These patients contribute materially to the lack of beds for worthy and hopeful types of patients.

Tuberculosis Statistics for Year 1926		
	1926	1925
Number cases reported—white....	780	693
Number cases reported—colored... 229	229	174
Number cases reported—yellow... 5	5	5
Total number cases reported..	1014	872
Number deaths—white.....	321	289
Number deaths—colored..... 97	97	88
Number deaths—yellow..... 3	3	1
Total number of deaths.....	421	378

Number visits made by		
Division Nurses .....	15,345	
Number investigations made by Division		
Nurses .....	345	
Total number of visits.....	15,690	18,332
Number food handlers examined at		
Clinic .....	14910	9865
Number examined Colored Clinic..	1599	1560
Number adults examined.....	1582	1981
Number camp children examined..	1551	2063
Number children examined at Clinic .....	953	1245
Number examined Ironbound Clinic	514	544
Number examined Garside Clinic..	360	421
Number examined Waverly Clinic	239	287
Number examined Hay Fever and Asthma Clinic .....	176	259
Number examined Night Clinic...	155	132

Total number examined at clinics .....		
	22,039	18,357
Number examined Glen Gardner Clinic .....		
	669	579
Number examined Verona Clinic..	377	381
Number examined Farmingdale Clinic .....	49	66
Total examined at sanatorium clinics .....	1095	1026
Number suspicious cases reexamined (food handlers).....		
	1148	938
Number physicians visits to home	156	93

Nativity of Reported Cases, 1926	
United States .....	730
Italy .....	59
Poland .....	51
Russia .....	36
Austria .....	30
Ireland .....	20
Germany .....	14
England .....	10
Hungary .....	8
Spain .....	8
Greece .....	7
Portugal .....	6
Scotland .....	5
Sweden .....	4
China .....	4
Roumania .....	3
Czecho-Slovakia .....	3

Galicia .....	2
Nova Scotia .....	2
South America .....	2
Belgium .....	2
Serbia .....	1
Philippine Islands .....	1
Denmark .....	1
France .....	1
Mexico .....	1
Canada .....	1
Lithuania .....	1
East Indies .....	1
Total .....	1014

Nativity of Deaths from Tuberculosis for 1926	
United States .....	291
Poland .....	25
Italy .....	21
Ireland .....	14
Russia .....	12
Austria .....	11
Hungary .....	10
Germany .....	8
England .....	6
Lithuania .....	5
Scotland .....	3
Czecho-Slovakia .....	2
China .....	2
Portugal .....	2
Canada .....	2
Sweden .....	1
Denmark .....	1
Mexico .....	1
Belgium .....	1
Spain .....	1
Greece .....	1
Switzerland .....	1
Total .....	421

Cases and Deaths by Years		
1926.....	1014	421
1925.....	872	378
1924.....	909	392
1923.....	1129	406
1922.....	1192	428
1921.....	1247	446
1920.....	1790	540
1919.....	1899	637
1918.....	1962	798
1917.....	2097	820
1916.....	2419	783
1915.....	2146	808
1914.....	2117	676
1913.....	1923	733
1912.....	1783	596

JEFFERSON MEDICAL COLLEGE.

In a letter from the Dean of this famous and deservedly popular medical school, we are asked to inform the medical fraternity of New Jersey that the old school is facing a great need and is appealing to friends everywhere for financial assistance.

Cramped in a building that was no more than adequate some 20 years ago and facing the serious need of new laboratories and equipment, Jefferson—the largest medical college in America—must advance or soon relinquish her leadership in the effort to cope with this condition.

No medical college worthy of the name can hope to be self-supporting. Medical education—

the most expensive, technical, and stringently controlled by law of all sciences—inevitably becomes a charge upon a generous public.

In no less a degree does Jefferson Hospital face the peremptory demand for a more adequate out-patient department—where the sick and injured of the congested districts of the city may receive free medical service and treatment. Too great stress cannot be placed upon this essential phase of a modern city hospital's service. Its work in restoring Philadelphia's men, women and children to health and usefulness, in detection and quick restraint of possible serious contagion, in the prevention of disease, and in social service is as definite a contribution to Philadelphia's economic wealth as the establishment of a mammoth new industry within the city's boundaries.

Squarely facing their responsibility to the future, the Trustees present their two-fold plan for a Greater Jefferson: (1) A modern College Building; (2) A modern out-patient department, to be housed in the present college building, remodeled for the purpose. Ultimately, the cost will exceed \$2,000,000, and of that sum at least \$1,500,000 must be secured in the present campaign in order to proceed.

We feel certain that the many graduates of Jefferson practicing in this state will want to aid in the successful development of this campaign.

#### ATTENTION OF FORMER ILLINOIS DOCTORS

(Portion of a letter from Charles J. Whalen, M.D., Editor of the Illinois Medical Journal.)

Doctors who lived formerly in Illinois, or who are descendants of pioneer physicians of the "Illinois country" will hear with interest that Volume I of the "History of Medical Practice in the State of Illinois" is ready for delivery.

The history has been written under the supervision of a committee appointed by the Illinois State Medical Society as a commemoration of its seventy-fifth anniversary, but more especially to make a living tribute to those valiant men of the medical profession who played so able a part in the exploration, settlement and development of the Illinois country. In this first volume are set down events from the earliest available knowledge of conditions in the Illinois country, along through the days of the aborigines, and commencing with the actual records when, in 1673, Father Marquette had medical attention in Chicago, up until the year 1850.

In the second volume (now in preparation), narration continues up until the present time. Future years will bring other volumes so that this history will be an ever virile monument to the men and incidents whom it would honor.

Rare maps, unusual personal memorabilia and rare discretion in compilation, make this history of unique interest to doctors everywhere and to many laymen.

The edition is limited. It will not be reprinted. A place in every physician's library is merited by this volume, both as a tribute to the men who blazed the trail for modern scientific medicine and as an ever-present reminder and authority as to what is happening to medicine right in this state every day so far as finance, discovery, legislation and public relations are concerned, and the men who are responsible for the heritage of trust for over two centuries and

a half. Volume I is now ready. Volume II will follow soon. Orders may be sent to Committee on Medical History, Illinois State Medical Society, Medical and Dental Arts Building, 185 North Wabash Avenue, Chicago, Illinois,—Charles J. Whalen, M. D., Chairman.

#### HEALTH EDUCATION CONFERENCE.

New Jersey Health Officers Consider Publicity Methods.

(Letter from Henry B. Costill M. D., Director Public Health, Trenton, N. J.)

"Attend any gathering of sanitarians and you will hear education repeatedly offered as the ready remedy for most of the ills that beset health administration. But you will hear little or nothing about who, or how, or what to teach." This statement does not apply to the meeting of the New Jersey Health Officers' Association held in Newark, June 2, 1927, for it was devoted entirely to a very practical presentation of ways and means of reaching the public with health information.

For several years clinics on health educational problems have been conducted at the annual meetings of the American Public Health Association. They have aroused so much interest and have been so helpful that the Section on Health Education and Publicity offered to conduct a health publicity conference for New Jersey health officials, so that those who cannot attend the A. P. H. A. clinics might have an opportunity to profit by the ideas of the leaders in this new field of health work and for the mutual exchange of experiences. The offer was accepted by the Health Officers' Association, and the program was arranged entirely by representatives of the American Public Health Association.

Dr. Raymond S. Patterson, of the New Jersey State Department of Health, opened the meeting with a brief outline of the growth of public health administration and the reasons for including publicity work in the modern health program. He was followed by Professor Allen Sinclair Will, of the Department of Journalism, Rutgers University, whose subject was, "Giving Information on Public Health to the Newspapers". Everybody reads the newspapers, and Professor Will's suggestions for securing the co-operation of newspaper reporters and editors in using health material were helpful.

Dr. Iago Galdston, of the New York Tuberculosis and Health Association, believes that the spoken word is the most effective method of health education because of the emotion appeal which it is possible to make. He discussed how, what, and to whom public talks on health topics should be made.

At the afternoon session the importance of visualizing health facts for the reader or listener was emphasized by Mr. Evert G. Routzahn, of the Russell Sage Foundation, and Dr. W. W. Peter, of the Department of Public Health, Yale School of Medicine. Mr. Routzahn illustrated his talk, entitled "Putting a Kick Into Your Statistics", with good and poor examples of health charts, graphs, etc. Dr. Peter, in telling how to talk health to the Chinese, showed illustrative material, including stereopticon slides, used by him during his work in China.



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## EARLY JEJUNOSTOMY IN PARALYTIC ILEUS

SAMUEL J. SOSCHIN, M.D.

Surgical Service of Dr. Max Danzis, Newark  
Beth Israel Hospital,  
Newark, N. J.

This paper is based on a review of 1273 cases of appendicitis admitted to the Beth Israel Hospital during the years 1922 to 1926 inclusive. I have also included several cases of peritonitis, due to tonsillar infections and adnexal disease. Of this total number of cases, 519 were classed as acute appendicitis. The mortality rate in this group was 7.6%, or 40 cases where death was due to peritonitis. When one considers that of these 519 cases only about 35% were acute, suppurative forms, it is readily seen that the corrected mortality rate is much higher. It is with this thought in view that I carefully analyzed all the so-called peritonitis deaths to determine where judicious use of an early enterostomy might have saved some of these patients, as illustrated by 3 successful cases.

When one mentions "acute general peritonitis" it is well understood clinically as implying an unlocalized spreading suppurative peritonitis, unlimited by adhesions and producing characteristic clinical signs, especially a tender, rigid abdomen, rapidly rising pulse, repeated vomiting becoming effortless in character, and cessation of the passage of gas and feces—the so-called silent abdomen. Since peritonitis of appendiceal origin is by far the most common variety,

in the experience of the general surgeon, I will attempt to trace the course of events in a case where perforation of the appendix determines the onset of an acute spreading peritonitis. The peritoneum in the region of the appendix is the portion first to be attacked. Here a protective fluid exudate is produced which by gravity is carried to the pelvic basin, where no drainage is available. The pelvis fills from below upward with turbid fluid which soon becomes purulent. The ileum, which lies in the pelvic basin, is immersed in a bath of purulent exudate. Its peritoneal surface becomes dull and lusterless, with marked congestion of the vessels in the serosa. The wall becomes edematous and thickened. The musculature is damaged and contractility is impaired or lost. Thus, the first stage is a pelvic peritonitis. Not infrequently adhesions form, walling off the appendiceal focus and forming an appendiceal or pelvic abscess. When localization does not occur, pus fills the pelvis and keeps rising among the suprapelvic intestines, inflaming and paralyzing them and producing a modification of the clinical aspects of the case. By this time, paralysis of the pelvic intestines is almost complete, and where hitherto the main toxic factor has been absorption from the peritoneal cavity, it now becomes absorption of highly toxic duodenal and jejunal contents. Thus, before the spreading peritonitis can become universal, the patient succumbs—not to peritonitis but to intestinal obstruction.

That general peritonitis is rarely universally distributed through the abdomen has been pointed out by Handley. His re-

port was based on many years of clinical observation and necropsy findings. My own experience in the operating room and occasional postmortem examination has proven this to be true. In reviewing the appendiceal cases, I came across several where the right upper abdomen was opened for suspected upper abdominal disease. Two of these cases were diagnosed as general peritonitis, yet the upper abdomen was perfectly clear while from the umbilicus down there was a diffuse suppurative peritonitis. Handley divides peritonitis into 3 stages, the pelvic, the hypogastric, and the terminal. During the pelvic stage, there is the usual sharp, cutting pain, fever and rapid pulse; tenderness of the lower abdomen with slight distention in the hypogastric area but no rigidity; vomiting is not a striking feature. If no localization occurs, the peritonitis passes to the hypogastric stage, which is of short duration but fairly characteristic. It is in this stage that an enterostomy is most efficacious. The pulse tends to rise and the temperature falls somewhat; patient looks anxious and is very uncomfortable; vomiting is vigorous, of considerable amount and frequent, consisting usually of stomach contents stained with bile and not offensive. The characteristic feature of the abdominal examination is the presence of distention and rigidity with immobility and tenderness in the lower half of the abdomen, while the upper half is only slightly distended and tender but still soft. This stage affords presumptive evidence of an obstruction of the small intestine. Throughout this stage, however, small quantities of flatus may be obtained through the use of eserine and pituitrin, turpentine enemas or stipes. This stage lasts about 24 hours. In the terminal stage the abdomen becomes greatly and uniformly distended; upper abdomen becomes rigid; vomiting changes in character, becoming frequent and effortless, each time only an ounce or two of foul-smelling fluid is brought up—vomiting which is purely mechanical, being due to high pressure of fluid and gas in the stomach; patient becomes cold and clammy, with the typical Hippocratic facies, and survival

is measured by hours. Enterostomy in this stage is useless.

Experimental investigation in the past few years has added greatly to our knowledge as to the physical and chemical changes that take place in intestinal obstruction. The experiments of Stone, Whipple and Bernheim have shown that death in most part is due to a profound toxemia due to absorption of highly toxic protein material from the upper jejunum and duodenum. Associated with this, there is a marked drop in plasma chlorides, according to Haden and Orr. Van Beuren produced high intestinal obstruction in 10 dogs and tabulated his results. He concluded that at the end of 48 hours, in simple intestinal obstruction with little intestinal damage, there was enough poison in the obstructed bowel to cause vomiting, purging, toxemia and even death. He recommends that enterostomy be done as a routine procedure in mechanical ileus cases that have been obstructed for 48 hours or more—except in very advanced cases where it can probably do no good and may hasten a fatal result.

Of the 40 deaths in this series, 19 patients showed definite signs and symptoms of intestinal obstruction of the paralytic type. I base this statement on the following constant findings. Each of these cases showed increasing abdominal distention, beginning in the lower abdomen and gradually extending upwards, persistent vomiting which became effortless in character, and little or no flatus or stool. The sequence of events was gradual, death occurring in from 4 to 6 days postoperative. Five cases in this series had some form of intestinal drainage before death. In 1 case a cecostomy was performed one hour before death. This patient was moribund and the procedure did no good except perhaps hasten the final outcome. The other 4 had high jejunostomies. One patient died after 3 days, and on autopsy showed a mesenteric thrombosis. One died 36 hours after enterostomy; this case showed definite obstructive signs 72 hours before operative intervention and should have had an earlier enterostomy. The third patient showed a marked improvement after en-



terostomy; all obstructive symptoms subsided and she seemed to be on the road to recovery, but death occurred 10 days later with cardionephritic symptoms. The fourth and fifth cases were in the terminal stage and died shortly after the operative intervention.

It is true that there are certain cases of fulminating peritonitis in which all measures fail. But, on the other hand, there are cases in which the accepted treatment fails and which do not belong to this group, namely the paralytic ileus cases which progress more slowly to a fatal issue. It is these cases that are frequently abandoned to a fate which seems inevitable. The surgeon watches the case carefully. He tries to combat the progressive distention and vomiting by medical measures but fails to stem the progress. His passivity is determined by the belief that paralysis affects the whole length of the bowel. When enterostomy is mentioned the typical answer is, "What is the use, the patient will die". Finally, when the procedure is adopted, the toxemia has reached its maximum and the exitus is merely hastened.

In the past 2 years we have been more keen with resolve to operate early in this complication, and results have been gratifying in that we have to report 3 cases that recovered.

Case 1. Boy, aged 5, operated on in July, 1925, for acute gangrenous appendicitis. There was increasing abdominal distention, which on the third day was marked. Vomiting was persistent and copious, but later became effortless with small amounts. He was seen in consultation by Dr. Danzis on the fourth day. At this time his abdomen was so distended that the skin was tense and glistening. No flatus or stool had been passed. The pulse was of fair quality. When enterostomy was advised the attending surgeon thought the procedure would be useless. Dr. Danzis performed an enterostomy on the fourth day postoperative and there was an immediate and striking improvement; vomiting ceased, the distention subsided and what had hitherto looked like a

moribund state became a peaceful convalescence. The intestinal sinus closed in 4 weeks. There was a secondary intramural abscess over the sinus site which healed without any complications. The child is at present in perfect health.

Case 2. Boy, 2 years of age, admitted to Beth Israel Hospital with a diagnosis of peritonitis, probably of tonsillar origin. Exploration revealed a purulent peritonitis most marked in the pelvis. Appendectomy was performed and the abdomen was closed with ample drainage. At the end of 36 hours the child showed definite obstructive signs; very marked distention of the lower half of the abdomen with persistent vomiting; appeared toxic; expelled a small amount of flatus and fecal matter. Dr. Danzis performed a high jejunostomy under local anesthesia. Drainage through the enterostomy tube was profuse and general improvement was immediate and striking; vomiting ceased and distention disappeared. The jejunal fistula caused a marked excoriation of the surrounding skin but closed in about 3 weeks, and the child was discharged as cured.

Case 3. Female child, 3 years of age, on whom I operated March 5, 1925. She had an acute gangrenous appendicitis with a very marked pelvic peritonitis. The intestinal coils, up to the level of the umbilicus, were matted together with a greenish exudate. I removed the appendix and inserted drains in the right gutter and pelvis. At the end of 36 hours she began to show obstructive signs. The abdomen became distended, vomiting became persistent and effortless, and there was no flatus or feces. The child appeared to be in the terminal stage of a general peritonitis. After the first operation I did a high jejunostomy under local anesthesia. Improvement was immediate and marked. Vomiting ceased and the distention subsided. On the fifth day she forcibly pulled the tube from the jejunum, causing some bleeding. In spite of this, the sinus closed spontaneously in 10 days and she was discharged

about a week later. When last heard from she was in perfect health.

The technic of a jejunostomy is fairly simple. It should always be done under local anesthesia. The operation can very well be done in bed. There is very little shock to the patient. The best site for the fistula is the left upper quadrant at a point distal to the tip of the ninth rib. At this point a high loop of jejunum usually presents itself through the wound. A distended loop of bowel should always be selected. A rubber catheter of about 12-14 French size is sutured into the bowel. When the bowel wall is not too attenuated, the Witzel method is the procedure of choice; otherwise, a simple purse-string may suffice. Care should be taken not to unduly narrow or kink the segment of bowel used for the enterostomy. The tube should be secured to the abdominal wall either by a silkworm suture through the tube, or strapping it with adhesive to the abdominal wall to prevent its being pulled out; it should be long enough to prevent kinking and allow the patient to turn in bed without pulling it from the drain bottle. The skin irritation around the fistula, which may become formidable at times, can be taken care of very satisfactorily by protecting it with a paste of kaolin and glycerin, as recently shown by Smith and Christensen.

#### CONCLUSION

(1) Paralytic ileus is an important factor in fatal peritonitis.

(2) Early judicious performance of enterostomy is the best method to combat it.

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## CHRONIC GALL-BLADDER DISEASE

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Disease of the gall-bladder is perhaps one of the most important single chronic afflictions of the gastro-intestinal tract confronting the internist, and ranks high among the abdominal problems of the surgeon. It has been estimated that about 1% of the population have gall-stones. Since this represents end-results, or terminal pathology, a much larger proportion of the population must be suffering from precalculous stages of chronic cholecystitis. It is the exceptional case that runs the typical course, for more often the picture is obscure, presenting gastric symptoms of an atypical character with no beckoning label to guide us out of the labyrinth of differential diagnosis. Few of us will mistake the text-book picture of biliary colic, but to differentiate the neurasthenic dyspeptic from a vague case of chronic gall-bladder disease will oftentimes tax the diagnostic acumen of our elders.

#### HISTORY

Dr. Jonathan Forman,<sup>(1)</sup> in his excellent monograph on this subject, has arranged his material under specific headings and its extreme clarity has prompted me to do likewise. He has attempted to reconstruct the life history of gall-bladder disease and it seems well worth while to recapitulate some of this data. As he says, "A clinical history is the citation of the symptoms of a disease in their order of occurrence." It is important, therefore, to permit the patient to tell his own story in detail and for the practitioner to view it rationally and avoid asking leading questions to substantiate a "snap diagnosis". Regurgitation and acid eructations are common, especially after middle life, and too direct questioning often misleads us. Biologically we may classify cholecystitis under 3 headings:

(1) *Pure Infection*.—This type may result from typhoid, puerperal fever, colon bacillus infections, infectious arthritis, pneumonia, nose and throat infections, or from infectious foci in the gastro-intestinal tract itself. The



affection may begin as a catarrhal or as a suppurative process. Repeated recrudescences terminate in the contracted gall-bladder.

(2) *Disturbances of Metabolism.*—Pregnancy plays the most important rôle here; 90% of women with gall-stones have borne children. They have relatively less liver parenchyma than men, yet during pregnancy they have a double burden. Generally they lead more sedentary lives and are more prone to constipation. During gestation there is a physiologic increase in the cholesterol content of the blood and bile. Normally this excess is taken care of by compensatory mechanisms. If, however, this hypercholesterolemia is too great for adjustment by compensation then this supersaturation of bile is reduced to normal by precipitation of cholesterol stones somewhere in the biliary apparatus, usually in the gall-bladder. This process may be repeated with subsequent pregnancies resulting in further deposition of calculi.

(3) *Combination of Infection and Disturbed Metabolism.*—This undoubtedly is the most important biologic or etiologic factor in the development of gall-bladder disease.

The etiologic rôle of heredity in gall-bladder disease has not been proved but families prone to migraine, diabetes, obesity and arteriosclerosis often manifest more than passing interest in the disease. Gall-bladder disease in children is not a rarity. Wendel's<sup>(2)</sup> excellent contribution on cholelithiasis in infancy and childhood contained among others a case of stones in an 11 day old infant along with the report of a case of ruptured gall-bladder with stones in an 18 months old infant. Kellogg<sup>(3)</sup> collected a series of 64 cases of diseased gall-bladders in 12 of which stones were reported. Incipient pathology is not unusual in the second decade of life with an acute infection often preceding the gastric symptoms. Periodic headache, with or without nausea, and food repugnance are early symptoms. Varying degrees of gas eructations, fulness and distress occur. The dyspepsia is made worse by ingestion of greasy or fried foods, spices, condiments and raw fruits, usually because of a hyperacid gastric curve. Anorexia with bad taste in the mouth is often

marked in the morning. Our gall-bladder patient is often like the ulcer patient, usually afraid to eat because of resultant distress—uncomfortable fulness after meals but no actual pain. Induced vomiting often affords complete relief in early pathology. No long freedom from distress as in duodenal ulcer cases, yet the individual rarely seeks medical advice in this early stage. No localizing signs as yet although the gall-bladder is definitely compromised. Time goes on and eventually the indigestion leads to vomiting. Considerable belching for relief.

Localizing symptoms manifest themselves in the third and fourth decades. Dull ache in right hypochondrium with radiation along right costal margin. This state persists until the culminating gall-stone attack appears. Some dietary indiscretion is the usual immediate cause of the colic, the direct cause obviously being the migration of a stone. Acute colicky pain, localized at ninth costal margin and referred to the right scapula, is typical. There is predilection for nocturnal occurrence, may last 4-6 hours, and invariably necessitates morphin. Repeated vomiting gives no relief. After the attack, general abdominal soreness, especially in right upper quadrant, persists with rigidity of upper right rectus muscle.

Chenny<sup>(4)</sup> classifies the text-book types of gall-bladder disease into 4 groups, as seen in fourth to eighth decades: (1) Recurring attacks of colic with good health in the intervals; (2) recurring attacks of colic with variable indigestion in the intervals; (3) chronic indigestion with subacute gall-bladder attacks; (4) chronic indigestion without any suggestive biliary symptom. This type of case is not infrequently encountered by the gastroenterologist and has often been under long unsuccessful treatment for chronic gastritis, gastric neurosis, or achylic gastritis until a latent colic attack sheds sudden light upon the condition and more rational treatment is instituted.

Jaundice is a symptom of apprehension to the patient yet is only seen in less than 20% of cases in general practice. Consequently too much importance should not be attached to its absence.

### PHYSICAL EXAMINATION

This is next in importance to the history and should be complete; particular care being taken to rule out focal infections of the mouth, rectum, pelvis and genitalia. The gall-bladder does not readily lend itself to palpation and is perhaps less frequently felt than reported. In early biliary disease, abdominal palpation too often fails to elicit any information. Tenderness under right rib margin, with pain radiating to epigastrium is good evidence of gall-bladder disease. Lyon advocates bimanual thumb pressure in each hypochondrium in testing for gall-bladder tenderness. Hypersensitivity and hypermotility in the right upper quadrant, often manifested on slight stroking of abdomen, are seen in chronically diseased gall-bladder patients.

### X-RAYS

How often has the internist had his careful clinical diagnosis of chronic cholecystitis refuted by the roentgenologist's terse report, "No gall-bladder pathology noted"; and subsequent happenings then substantiated the clinician's diagnosis of biliary disease. So too has the x-ray disclosed the error of the physician by revealing unsuspected gall-bladder disorder in a suspected case of gastric or duodenal ulcer. All this confusion leads to the criterion that there is no such thing as an x-ray diagnosis. We must appreciate that the x-ray is only a part of the physical examination of the patient supplying us with evidence that we must then interpret and allocate in the general scheme of the symptom complex.

Dr. Reissman<sup>(5)</sup> has very kindly given me his views on the x-ray in gall-bladder diagnosis which are as follows: The x-ray evidence of a pathologic gall-bladder is divided into two classes:

(a) Direct findings, and (b) indirect findings. The direct findings are: (1) Deformity of the gall-bladder visualized by the tetraiodophenol-phthalein method; (2) the presence of stones.

The indirect findings are: (1) The gall-bladder seat (pressure upon the duodenal cap or antrum of the stomach), (2) atypical location of the gall-bladder, (3) narrowing of the duodenal lumen, (4) fixation of the cap,

(5) location of the hepatic flexure, (6) gas in the apex of the cap, (7) sharp angulation and abnormal course of the duodenum, (8) incomplete and uneven density of the dyed gall-bladder, (9) nonvisualization of the gall-bladder after the administration of the dye. There are many other findings; in fact the entire function of the digestive apparatus is important in determining x-ray gall-bladder pathology and constitutes indirect evidence.

The administration of the tetraiodophenol-phthalein sodium salt, as developed by Graham and Cole<sup>(6)</sup>, helps in gall-bladder diagnosis in so far that it visualizes the organ (the dye is excreted by the liver and mixes with the bile) and gives us an opportunity to add one more point to the direct evidence and some points to the indirect. The tetraiodophenol-phthalein sodium salt method is a comparatively new discovery and it will require much time and experience to appreciate its value and learn the significance of the evidence. Unlike the stomach, the gall-bladder is a more or less quiescent organ and its activities are not well understood. The use of the dye has increased the percentage of gall-bladder x-ray diagnoses but by no means to the extent that is claimed by some over enthusiastic roentgenologists.

### LABORATORY

Having discussed the importance of a careful history, the necessity of a complete physical examination, and the evaluation of the x-ray data, we must finally apply the tests of a clinical laboratory. A white cell count and differential may help in determining a case of acute cholecystitis which will show a leukocytosis. In quiescent intervals between acute attacks, and in chronic cases, there is often a leukopenia with a relative lymphocytosis. Lyon attributes this to a focus of infection with a lowered resistance.

A complete urinalysis is indicated in all suspected gall-bladder cases and helps to rule out kidney pathology. Bile is often found in urine following an acute attack, even when jaundice is not present, and obviously helps to interpret paroxysms of abdominal pain.

Fecal examination is too often neglected. Occult blood may be found in gall-bladder cases; consequently its presence does not nec-



essarily signify gastro-intestinal disease. Clay colored stools signify deficient bile and this together with ingested fat points to biliary disease.

Gastric analysis gives us information as to the secretory and muscular action of the stomach but does not necessarily indict this organ alone, since an associated gastritis is usual in gall-bladder disease.

The determination of the blood cholesterol is at times of aid in distinguishing between the jaundice due to obstruction and the jaundice due to cirrhosis, which uniformly gives a low figure for blood cholesterol. Coagulation time and bleeding time determinations are valuable preoperative measures.

#### DIFFERENTIAL DIAGNOSIS

In the chronic dyspeptic past 40, Bassler's dictum of diagnosing away from malignancy is a safe principle. Cancer until proved chronic cholecystitis in these patients often saves the practitioner from embarrassment and the surgeon from adding another case to the category of successful operation with fatal result.

The onset of pneumonia and pleurisy occasionally mimics right upper quadrant lesions by causing acute abdominal pain and rigidity. Careful chest examination should prevent error.

Liver abscess frequently gives a history of dysentery or appendicitis. There is hepatic enlargement with wabbling fluctuation. Irregular fever, chills and sweats are common.

Tertiary syphilis of the liver may produce pain and sometimes jaundice, often culminating in a mistaken cholecystitis diagnosis. The Wassermann test is apt to be negative. McCrae<sup>(7)</sup> considers abdominal swelling, emaciation and fever important diagnostic points.

In cancer of the head of the pancreas, there is persistently increasing jaundice with an enlarged gall-bladder. Courvoisier<sup>(8)</sup> has laid down this very workable rule for the relation of jaundice to palpable gall-bladder, which is known as his law: In 80% of common duct obstruction due to stone there is contraction of gall-bladder; in 90% of cases of enlargement of gall-bladder associated with jaundice, obstruction is due to causes other than

stone: Jaundice and palpable gall-bladder, new growth; jaundice and nonpalpable gall-bladder, gall-stones.

It might be clarifying at this point to classify the more important causes of nonobstructive and obstructive jaundice.

*Nonobstructive Jaundice.*—(1) Poisonings (phosphorus, arsenic), differentiated by gastric analysis and history; (2) cirrhosis, differentiated by ascites, dilated veins, blood vomitus, size of abdomen; (3) anemia, differentiated by blood examination; (4) pregnancy, differentiated by signs of gestation; (5) malaria and yellow fever, differentiated by plasmodia, chills, quinin benefit, anopheles; (6) typhoid fever, differentiated by Widal, blood culture; (7) acute yellow atrophy, differentiated by decrease in size and function of liver, leucin and tyrosin in urine; (8) hemolytic (hemorrhagic) jaundice, differentiated by splenomegaly, fragility of red cells, no gall-bladder symptoms; (9) Weil's disease, differentiated by leptospira icterohemorrhagica in blood.

*Obstructive Jaundice.*—(1) Outside duct: (a) Head of pancreas-tumor, cyst, tuberculosis, syphilis; (b) tumors of stomach, (c) tumors of duodenum, (d) lymph gland swellings, (e) aneurysms, (f) liver growths.

(2) In wall proper: (a) edema, (b) carcinoma, (c) fibrous hypertrophy giving stricture.

(3) Within lumen: (a) Stones, (b) mucous plug, (c) carcinoma, (d) worms and parasites (rare).

In gastric and duodenal ulcer, the relationship of the pain to the ingestion of food is almost pathognomonic. Melena, hematemesis, and dilatation, together with careful skiagraphic series, add confirmatory evidence.

In a high appendicitis, the pain may be in gall-bladder region. Age incidence and history of onset are valuable clues.

Hernia of the epigastrium and umbilicus is differentiated by the usual precipitation of colic when straining and lifting. Examination of the patient in the upright posture will guard against error.

Migraine, the bilious headache, simulates gall-bladder disease. Hereditary tendency and

the benefits of luminal aid in differentiation.

Diverticulitis of the colon offers difficulty at times and may be ruled out by x-ray. The reference of pain caudad is also of help.

Correct serology and neurologic investigation should differentiate the gastric crisis of tabes.

In the consideration of kidney lesions, 2 general types of pain may be mentioned: (1) True renal pain characterized by dull, constant aching never becoming paroxysmal, and located in lumbar region without radiation. (2) Ureteral pain, colicky in character, diffusely located in lumbar region with radiation through inguinal region or on to thigh. To establish pain of nephrogenic origin, however, it must be correlated with some associated symptom or sign, for, as Mackenzie states, "All the symptoms of kidney disease are found in the chemical examination of the urine, in the frequent micturition, or as the result of its impaired secretion in other organs and systems." To associate the pain with pus or blood, to employ modern cystoscopic and x-ray methods, and to determine definite bacterial etiology, completes the clinical picture and indicts the urinary tract.

#### TREATMENT

It is perhaps a universal opinion that the most favorable means of permanently curing a chronically diseased gall-bladder is by surgical intervention. Yet surgeons themselves consider biliary lesions one of the most disappointing fields of surgery. It has been estimated that the average operative mortality is about 5% (Lyon), surely too high a percentage unalterably to urge laparotomy. The indication for surgery depends not on the presence of biliary disease itself but rather on the clinical course of the disease. Certain acute conditions, such as gangrene, empyema, and rupture of the gall-bladder, require no hesitancy of decision. Recurrent gall-stone colic is a distinct indication for surgery, as also are cases with obstruction from mucous plug or from repeated inflammation resulting in stricture or stenosis of ducts. Acute cholecystitis usually indicates early surgery following the subsidence of the immediate shock of acuity. The chronic cholecystitis patient, who

under careful medical treatment and dietary regimen fails to improve, should then have the advantage of surgical measures.

Marked cirrhosis, advanced nephritis and myocardial lesions, and diabetes are grave surgical contraindications. The asthenic visceroptotics with narrow costal angles are poor surgical risks and frequently are worse after operations.

The time-worn argument of cholecystostomy versus cholecystectomy is familiar to all of us. Drainage of mild cases of cholecystitis is not satisfactory. Walton Martin<sup>(9)</sup> says, "A mild gall-bladder lesion with no adhesions is not infrequently converted into a well marked lesion with many adhesions by inserting a drainage tube into the gall-bladder." Furthermore in a chronically thickened and infected gall-bladder does it seem feasible that surgical drainage will remove the existent pathology?

Having spoken of surgery and its contraindications, what cases should be classified as medical? (1) Mild cases of cholecystitis with long intervals of relief occurring in vigorous resistant individuals. (2) Those cases manifesting definite surgical contraindications. To this class may also be added the visceroptotic neurasthenic. (3) Surgical failures.

What constitutes adequate medical treatment? (1) Dietary regimen, (2) nonsurgical biliary drainage, (3) drug therapy.

Proper diet implies a low fat and cholesterol intake and such other modifications as the individual's needs demand.

No medical treatment is complete without the use of nonsurgical biliary drainage, as advocated by Lyon<sup>(10)</sup>. The technic is simple and without danger. Weekly drainages in the average case usually suffice and should be continued until normal bile is obtained. Many cases of mild cholecystitis and many cases of only partial surgical relief can be cured by this method. The majority of others show improvement. The undeniable success of the treatment lies in the fact that cases of cholecystitis have a coexistent cholangitis of varying degrees. Nonsurgical drainage empties not only the gall-bladder but the biliary ducts as well. Many of the surgical failures are



due to this residual cholangitis and to an inflammatory process in the head of the pancreas. Nonsurgical drainage removes the insidious pathology and completes the cure. Many surgeons are beginning to appreciate this method as an important adjunct both before and after operation.

Aside from calomel and saline purgation and the use of morphin, there are other drugs in our medicinal equipment that can be of distinct value. All text-books, and particularly the older ones, mention sodium phosphate for its stimulating effect upon the liver cells; bile salts (ox-gall and sodium taurocholate) for their cathartic action; and sodium salicylate for its hepatic stimulating action and anti-septic benefits. But few writers speak of what has been to me the most valuable of all these, i. e., sodium succinate. This medicament fluidifies inspissated bile and aids in the sterilization of infected bile. This latter fact can be demonstrated by the reduction of bacterial count in bile during successive drainages while under succinate therapy. Unlike sodium salicylate it is nontoxic and has no untoward cardiac or gastric effects. Animal experimentation has shown that it increases the leukocytic content of the blood and stimulates intestinal activity. Used in 5 gr. doses in conjunction with atropin, it stimulates the ready flow of bile and facilitates nonsurgical and physiologic drainage.

Summarizing, therefore, let us be more painstaking in our diagnosis in respect to carefully recorded histories, complete physical examination, and proper evaluation of x-ray and laboratory data. Let us remember that all cases are not surgical and that a more coöperative understanding between surgeon and internist will enhance our value to the patient and keep him from the cults and the charlatan.

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## PREVENTIVE PEDIATRICS

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The physician's work is rapidly changing in character. Until recently most of our time and energy has been spent in endeavoring to diagnose and cure patients who were already ill. This has kept us busy and has satisfied the people as well as ourselves. Preventive medicine has been in the hands of the Boards of Health and similar organizations and has been directed toward the improvement of water, milk and food supply, and preventing the spread of epidemic infectious diseases. Large groups of diseases have been almost wiped out in this way; the best example being that of the diarrheal diseases. While most of us have never seen a case of cholera, many can remember when the medical wards of our hospitals were half filled by patients with typhoid each fall. In fact we were taught a great deal of our medicine on typhoids. Today a case of typhoid is a comparative rarity in New York City. The same thing is true to a lesser degree of the summer diarrheas. A few years ago our infants' wards were filled all summer long by these cases. Now the same wards are half empty each summer. Furthermore, the Board of Health records show that the death rates from all of these diarrheal diseases have fallen tremendously.

These improvements have been largely ac-

complished by public agencies aiding the local Board of Health. Everybody knows more or less about them and everybody appreciates what they have accomplished. But what can we, as individual practitioners, do along these lines? This is the question that confronts us and even the people are wondering whether we can do more than help them to recover from an illness. Can we, in fact, protect them from certain diseases? If we can, is prevention not better than illness even with a cure in prospect? It is these preventive measures in relation to infants and children that I wish to discuss.

First, there are certain infectious diseases which can be largely eliminated in a community by artificial immunization. Small-pox is the classical example. Certainly, none of us question the efficiency of or necessity for vaccination. Yet, the annual recurrence of epidemics of small-pox and the presentation of a considerable number of unvaccinated children at school each year, goes to prove that we do not live up to our belief. In 1923, there were 21,233 cases of small-pox in the United States; in 1924, 43,029 cases, and in 1925, 31,037 cases. A little more care and effort on our part and every child would have been vaccinated before he was a year old and most of these cases would not have occurred.

Diphtheria is another infectious disease which can be largely wiped out if we will only make use of our recently acquired knowledge. The facts regarding immunity to diphtheria are as follows: The majority of infants at birth are immune to diphtheria; all but about 10% have lost this immunity by 1½ years of age; at puberty the percentage of immunes begins to increase gradually until among adults about 60% are immune. This leaves a long period, from 1 to 13 years, during which ages most children are susceptible to diphtheria. The Schick test will show which are not immune, and practically all of these children can be rendered immune by the use of toxin-antitoxin. The whole procedure is simple and free from danger.

That active immunization will reduce the death rate from diphtheria in a community has been shown by figures from several cities.

If we take the Borough of Manhattan, the rates per 100,000 of population have been as follows:

Year	Deaths	Rate
1915	607	26
1916	482	21
1917	589	26
1918	598	26
1919	520	23
1920	426	19
1921	310	14
1922	365	17
1923	190	9
1924	240	12
1925	254	13

Immunization of school children was started in 1919 and since then about one-third of the children in the public schools have been immunized by Board of Health officials. Many of the others have been done by private physicians. The death rate began to fall immediately and for the last 3 years has been about half what it was before immunization was begun. As yet, the rate has stayed about 11 per 100,000. By analysis of a large series of cases, the Board of Health officials find that 34% are under 3 years of age and that in this series more than 50% of the deaths occurred in children 3 years of age or under. They are now trying to have these younger children immunized and hope in this way to cut the death rate still more. This brings the whole matter back to the family physician as he is in closer touch with these small children, and to be really effective immunization should be done before the end of the first year of life.

There are a few points regarding immunization that should be emphasized. There is nothing to be gained by doing Schick tests on children under 3 years of age as a negative result does not mean that they will be immune. The better practice is to immunize all such children. All older children should be given a Schick test first, as children who are found immune at this age probably stay immune indefinitely. Those immunized should, however, be retested some months later, at which time a small number will still be found susceptible. These should be given a second course of toxin-antitoxin and retested again after 6 months more. In this way all but a very small percentage can be rendered im-



mune. An occasional child will be found who cannot be made to develop any immunity.

Diphtheria immunization has one advantage, from the patient's standpoint, in that the patient stays immune for a long period of time, possibly for life. Thus, it does not have to be renewed every 5 or 6 years as is the case with vaccination against small-pox. So far as I know, the only serious accidents that have happened have followed the use of toxin-antitoxin mixture which had been frozen.

Toxin-antitoxin cannot be used to protect children who have already been exposed. It takes 15 days to give the 3 doses and several weeks more before the full immunity develops. For those exposed a protective dose of antitoxin is necessary.

Protection against scarlet fever by active immunization has not reached anything like so satisfactory a stage. At the present time different workers have quite diverse views as to its effectiveness. The Dick test, some say, shows whether a person is susceptible to scarlet fever. Others believe that some people showing negative Dick tests can nevertheless have a sore throat due to the scarlet streptococcus, but no rash, and that such patients can convey scarlet fever to others. All agree that an active immunity can be developed by use of the toxin. The trouble is that this immunity is apparently short lived, lasting only about a year in most cases. Until the immunity is more lasting, it does not seem warranted to urge people to have their children immunized as a routine procedure, but in the presence of an epidemic in an institution, such immunization would be a great help.

We have no means of inducing active immunity against measles. We can, however, confer a more or less complete passive immunity, which lasts about 3 weeks, by the use of convalescent serum. There is a great difference in the effectiveness of different serums and at present there is no way of measuring this. Furthermore, the earlier the serum is given after exposure the more effective it is. After the third day, according to my experience, it never prevents but frequently modifies the disease so that it is scarcely recognizable. Another curious ef-

fect is that it sometimes prolongs the incubation period into the third or even the fourth week. Needless to say, it is not on the market and so is difficult to obtain in a hurry. The one real indication for its use is when a feeble infant or young child, one whose condition is such that an ordinary attack of measles is almost sure to lead to a disastrous result, has been definitely exposed.

Whooping cough is another disease in which active immunization by vaccination has been tried extensively. The New York Board of Health has now given it up as of very questionable value. The evidence from all sources has been very conflicting. I have never been convinced that vaccination of an individual had absolutely protected that individual. It has, however, seemed to me that those individuals who were vaccinated soon after an exposure invariably had lighter cases than the unvaccinated individuals. This is merely a personal impression and I give it as such and not as a definite fact.

There are other diseases of a metabolic nature which can be prevented by proper additions to the diet. Scurvy is the classical example of this group. We all know that scurvy occurs in some artificially fed infants unless fruit juice is added to the diet. It is more apt to occur when the milk used has been pasteurized or boiled. It is especially apt to occur in infants fed on proprietary foods. So thoroughly understood are these facts that I suppose there is not a man here who does not insist on giving orange or tomato juice, or their equivalent to every infant after the second or third month.

Rickets is another disease which recent work has partly explained and which can be almost entirely prevented provided we make full use of our knowledge. Rickets is due either to a diet deficient in what we call the antirachitic vitamin or to too little direct sunlight. Sufficient of either factor will, in the great majority of cases, either prevent or cure rickets. The sunlight, to be effective, must contain the shortest rays of the solar spectrum. Curiously enough, these rays are stopped by ordinary window glass and to a large extent by clouds, smoke, and thick clothes. So, to have the

sunlight effective, the infant's skin must be exposed directly to the sunlight. It is not, however, necessary to expose the whole body. The effect is not local but general. The food factor is present in large quantity in cod-liver oil, egg-yolk, and probably in green leaves. Milk, both human and of cows, contains a variable amount which seems to vary with the diet of the woman or cow. Most milks are deficient in that they will not fully protect the infant unless supported by light or some food rich in the antirachitic vitamin. In the warmer months, most small infants receive sufficient sunlight to protect them. In the colder months this is not true and, if their diets are deficient, by Spring many of them show some evidence of rickets. By giving all infants 1 to 2 teaspoonfuls of cod-liver oil daily during the colder months, this can be prevented in most cases. This is the easiest way of preventing rickets and should be done as a routine measure during the first 2 winters. Exposure to direct sunlight is not as satisfactory in this climate in winter. There are too many dark days and often it is too cold. Recently, a window glass has been put on the market which allows passage of the short rays, and this glass is only slightly more expensive than ordinary glass. A window of such glass ought to help materially in the sunning of infants in the country and smaller cities where the houses are farther apart and more exposed. This prophylactic schedule should be continued throughout at least the first 2 years.

The prevention of rickets will do away with many of the postural defects which cause so much trouble later on. This is particularly true of knock-knees, flat-feet and malformed chests. Still, every child should be watched for the first evidence of these and for spinal curvature. Almost all of these defects can be corrected if discovered early and if proper measures be taken.

At adolescence, the demand on the thyroid, especially in girls, is greatly increased and at this time a good many show some enlargement of their thyroids. These adolescent enlargements are much commoner in those sections of the country where the soil contains little iodine and where no sea-food is eaten. They are not

uncommon, however, in New York City, and I should expect them to occur still more frequently in northern New Jersey. It has been shown that they are due to a relative or absolute lack of iodine in food and water. All adolescent children should be watched for the first signs of enlargement. Iodine should be given as soon as any enlargement is noticed. Marine advises from "15 to 30 c.c. of the syrup of hydriodic acid, given in from 0.5 to 1 c.c. doses daily, and repeated each Spring and Autumn" until the patient is 17 years of age. In goitrous sections all children between 10 and 17 years of age should receive iodine each year without waiting for signs of enlargement. It is important to start iodine early in these cases as all one can hope to do in the later stages is to stop the increase in size. Thyroid gland should not be given in these adolescent goiters; only iodine.

As yet, we have no satisfactory method of protection against the large group of upper air passage infections, headed by the common cold. Vaccines, both autogenous and stock, are, in my experience, a gamble. Sometimes they appear to do good and then again they have no effect. The trouble is that as yet we do not understand the etiology of these diseases. Are all colds due to one infectious agent at the start or are they due to different organisms? If the first is true then the streptococcic and pneumococcic sinusitis, otitis, trachitis, bronchitis, etc., are true complications. In which case our ordinary vaccines are directed against not the original disease but the complication. Until these questions are answered we shall have to wait for any specific preventive measures.

In closing, I would make a plea for an annual or semi-annual examination of each small patient. Height and weight curves can be watched at such times and the diet corrected to meet requirements. Postural defects should be looked into and appropriate measures taken to correct them. These defects are rarely noticed if one only sees his patients when they are ill in bed and if they are allowed to go on until the parents notice them, the problem of correction is much more difficult. Such an examination at the end of the first year allows



one to be sure that the infant's bones are developing normally, to be sure that he has no rickets, to look for visual trouble such as strabismus, to arrange the change to 3 meals instead of several small ones, to vaccinate against small-pox and to arrange about diphtheria immunization. Thus, every year brings its problems which, if nipped in the bud as it were, are easy to handle but if allowed to go on for along time cause endless worry and trouble to correct.

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## ENCEPHALITIS

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It is just about 10 years since encephalitis appeared in epidemic proportions in various parts of the globe, reappearing each year in different localities with varied and new manifestations. It is a comparatively new disease in its epidemic form, though the occurrence of small epidemics in centuries past has been described. In some of the older epidemics, the disease was attributed to food poisoning and, similarly, some of the earliest cases of past epidemics were considered to be botulism. As the report of other epidemics in various parts of the world were studied, it was soon noted that we were dealing with a new clinical entity of the nature of an acute, nonsuppurative, cerebrospinal infection. The last group of epidemics started in the Winter of 1916-17 and have appeared in many countries, the first cases in New York having been reported in March, 1919. They have occurred in all seasons of the year, with the greatest incidence in February and March.

Bacteriologic and cultural studies and experimental investigations have not brought to light any specific organism, but we are certain that the etiologic factor is an infectious organism which transmits the disease by direct contagion. The work of Loewe and Strauss, of New York, stands out prominently among recorded investigations. They have been able

to produce, in rabbits and monkeys, lesions typical of this disease, using Berkefeld filtrates of brain material, and nasopharyngeal mucous membrane and nasal washings from cases of epidemic encephalitis. Spinal fluid and blood from such patients have also produced these lesions experimentally in rabbits and monkeys. By means of the ascitic-tissue culture method, perfected by Noguchi, a minute filtrable organism from cases of epidemic encephalitis has been cultivated, and this work has been confirmed by other investigators using the same material, but, on the other hand, it has not been corroborated by workers in other countries using different materials and methods. Apparently we are dealing with an infectious disease caused, most likely, by a filtrable virus.

The earlier manifestations of this disease were in the form of acute disturbances, beginning with symptoms of the usual grippe malaise, angina, headache, backache, and coryza. Soon after these initial symptoms, the typical picture of encephalitis appeared, such as somnolence and diplopia, which may be the only symptoms for a time, the patient either gradually making an apparent complete recovery or developing more severe signs, such as generalized chorea, painful myoclonic spasms, marked delirium, which is usually of an occupational character, and severe intractable insomnia for variable periods. In some cases, gross cerebral paralyzes occur, such as a hemiplegia; in others, a gross spinal paralysis, that is a paraplegia from a transverse spinal lesion with sphincter paralysis. Many of these severe cases terminated fatally, while others made a fairly good recovery after long periods of convalescence. One manifestation of the myoclonic form of encephalitis appeared in epidemic hiccough which was both intractable and persistent for weeks at a time, and associated with marked mental excitement and insomnia, sometimes associated later with somnolence in certain periods of the day, and diplopia. Marked exaggeration of the reflexes occur in these cases and offer a clue to the diagnosis even in the absence of ocular disturbances. Only 2 months ago, I saw 2 cases of persistent hiccough from one locality, 1

patient having exaggerated reflexes, tremors and insomnia for several weeks, the other having associated with his hiccup a mild peripheral facial palsy on the right side accompanied by marked exaggeration of the knee jerks.

There is usually a febrile reaction, but not of constant character. Sometimes the febrile course is moderate and at other times it is fairly high; in the fatal cases there is usually a preterminal hyperpyrexia. In the very mild cases there may be no febrile reaction, or it may be of such short duration that it is not recognized. There is a moderate blood leukocytosis and often times a crop of herpes labialis is seen. The spinal fluid sometimes offers suggestive findings in the form of slight increase in the globulin content, a moderate increase in the cell count, and, of most diagnostic value, an increase of the sugar content. In many cases the spinal fluid findings are entirely negative and offer no diagnostic assistance.

The possibilities of combination in the syndromes of the acute form of the disease are innumerable and often times offer diagnostic difficulties. It is important to note that not all patients with this disease are sufficiently ill to go to bed. There are forms of ambulatory acute encephalitis in which the patient has symptoms but the attack is unrecognized and undiagnosed and later on, if the patient develops a postencephalitic syndrome, the history of having had an acute attack is negative. Then again, there are forms of subacute encephalitis in which the symptoms from the very beginning occur in moderate severity and continue to progress slowly over a period of weeks or months and, when the chronicity is prolonged, we have evidence to indicate that the disease began as chronic epidemic encephalitis without any acute manifestations.

No definite prognosis can be made in any form of the disease. It is stated that about 20% of the acute cases are fatal. The prognosis for the return to normal health permanently is the most difficult one to make, because no case of encephalitis, no matter how mild in its acute manifestations nor of how short duration, is safe from the possibility of de-

veloping a chronic manifestation of the disease in the future, even with an interval of apparent normalcy of 3 years or more. An individual may go through a very severe attack of acute encephalitis and remain apparently normal for many years after the attack; on the other hand, a very mild and abortive acute attack may disappear, leaving the patient apparently well for a short time, then developing symptoms and signs of a sequel in the nature of a chronic progressive disease of the central nervous system, such as paralysis agitans.

The so-called postencephalitis sequels or syndromes are better referred to as cases of chronic epidemic encephalitis. The most common type is that of paralysis agitans or parkinsonism, of which there are many forms and combinations which in atypical pictures escape detection by the untrained. It is common to find a marked increase, of varying degree, in the muscle tone either in one limb or in one-half of the body, or involving the entire body, without the slightest suggestion of a tremor. A patient of this character presents the fixity of expression, the posture, attitude and gait typical of the parkinsonian condition. Then again, there are cases of slight muscle tone increase but in which are seen very gross and severe tremors affecting various portions of the body.

Of greatest interest, next to the paralysis agitans state, is the disturbance in respiration. We have observed several hyperpneic cases of unusual interest. The attacks may consist of simple tachypnea, or the respiratory attacks may be of wide variation, some times simulating a Cheyne-Stokes curve with its typical phases, even including the apneic phase in which the patient while holding the breath becomes cyanosed and may fall semi-conscious. During the height of the hyperpnea there is seen, in some cases, a spasm of the hands and feet of tetanic character. This is the result of hyperventilation of the lungs producing a change in the carbon dioxide tension and resulting alkalosis. In one of our cases both phrenic nerves were frozen with ethyl chloride to produce a degeneration of these nerves and a paralysis of the diaphragm. In this particular case the result, so far, is as-



tounding. This patient has not had a recurrence of a single attack of the type preceding the operation but similar operative procedures in other cases have not produced such good results.

Another group of interesting manifestations are the spasmodic ocular gyrations. The commonest are those of upward spasmodic rotation with retraction of the head; in another patient, this was followed by downward rotation of the eyeballs and a flexion of the head on the chest with a diminution of voluntary activity of the entire body. Associated with this spasm, or independently, there occur attacks of spasm of the eyelids, involuntary closure (blepharospasm).

A pituitary syndrome may be seen in the form of obesity, polyuria, polydipsia, and in one case this was associated with Argyl-Robertson pupils. In one boy, the only residual was a persistence in the inversion of the sleep rhythm, that is, he slept all day and stayed awake all night. In children, personality disorders offer a great problem, so much so that children have become completely changed after an attack of acute encephalitis. Some of them become great behavior problems, demanding interference of the Juvenile Court because of the social tendencies developed. Various mental combinations are seen, some of which simulate dementia praecox and are difficult to differentiate, and in some instances the patients have been committed to institutions for study.

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## SYMPOSIUM THE TOXEMIAS OF PREGNANCY

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(The following 3 papers were read in symposium at a meeting of the Morris County Medical Society held at Dover, N. J., March 8, 1927.)

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### EARLY TOXEMIA OF PREGNANCY

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Nausea and vomiting occur, in varying degrees, in about 50% of all pregnancies. Hyperemesis gravidarum, or the pernicious type

of vomiting which is frequently the result of the insufficient study and care of the milder forms, has a mortality of 20%. For this reason every pregnant woman should be considered as a potential case of toxemia.

The etiology of this complication of pregnancy has been a matter of much dispute. Its existence was noted by Hippocrates, and Dr. George Kosmak, in an historical sketch of the subject, shows that from the time of Hippocrates, on down through the literature, many references are made to the various manifestations of these toxemias. It is interesting to note that with all our advance in scientific medicine no real contribution has been made as to the cause of this condition more illuminating than that published by John Burns, in 1813. While various theories have been advanced, it seems to be pretty generally agreed that the early toxemias are due to (1) reflex or neurotic disturbances, (2) metabolic disorders, or (3) a combination of the two.

That neurosis is a factor in the production of vomiting in both the pregnant and non-pregnant woman cannot be denied. We have all seen cases of vomiting subside, in each instance, when a version of the uterus has been corrected. Erosions of the cervix, if not causing, have accompanied, many cases of vomiting, and treatment of this condition has had a beneficial effect.

The theory that disturbed metabolism is a cause of this vomiting has many supporters. Blood chemistry findings and the more intensive study of the urine have shown disturbances which substantiate this theory. The urine shows a high ammonia content and lessened urea output which, Williams claims, is a manifestation of toxemia and not of starvation. The liver and kidneys both show marked degenerative changes, especially in the more severe cases.

Until its birth, the fetus is a parasite upon its mother, adding its demands of nutrition and the elimination of its waste products to her normal economy. Slemmons, in his article on "The Nutrition of the Fetus", has shown that nutritive exchange through the placenta is almost wholly in the form of glycogen. It therefore follows that the glycogen

storage capacity of the mother must be increased to maintain a proper balance, and that anything which occurs to disturb this glycogen storage ability must impair the nutrition of the fetus and the health of the mother. It has also been demonstrated that animals deprived of carbohydrates succumb more readily to smaller doses of poison than similar animals well fed. If this is true it is reasonable to assume that a person with a well marked carbohydrate deficiency possesses less resistance to toxemia than the normal.

In all cases of vomiting it naturally follows that there is a resultant decrease of fluids and food ingested and absorbed, varying with the severity of the vomiting. If the vomiting is slight it may produce no serious results. If severe and persistent, so that no food or water is retained, it is evident that a very serious situation can develop—headache, insomnia, loss of weight, thirst, decreased output of urine, dry-coated tongue, lowered blood pressure, dehydration and acidosis.

If we admit the truth of these assertions it is apparent that we have both a real and a relative carbohydrate deficiency in the vomiting of pregnancy; the real deficiency due to the lessened intake of food and water, and the relative deficiency due to the nutritional demands of the fetus.

The argument may be advanced that this metabolic disturbance is a result of the vomiting and not a cause. The fact that this disturbance of metabolism exists and has great potentialities for harm to both the fetus and mother is the important thing to consider, and recognition of this fact in outlining our plan of treatment is of greater import than controversy as to whether it is the result of, or a causative factor in, the production of the vomiting.

Endocrine dysfunction has also been advanced as a cause of this complication. The thyroid and adrenals have both been accused and the numerous good results attributed to the use of corpus luteum, advocated by Hirst of Philadelphia, would seem to substantiate this claim. However, when vomiting has reached the more severe stages, corpus luteum does not show the same happy results as in the

early less severe cases. This fact has led many authorities to believe that the beneficial results of this treatment have followed as much from its mental effect as from any real therapeutic value.

Clinically, these early cases have been grouped under several headings. Viewing them as one large class of different degrees of severity seems preferable, always mindful of the fact that the mild case of today may be the severe case of tomorrow. They vary from the ordinary distaste for food, with occasional morning nausea and vomiting in which there is no impairment of health, to those cases in which the vomiting is more persistent throughout the day but considerable fluid and food are retained; no appreciable loss of weight occurs and the patient is not particularly ill. These cases, if they do not yield to treatment, finally go on to development of that type of vomiting which we term the pernicious type, or hyperemesis gravidarum. When this stage is reached all food and fluid are ejected, urine output is lowered, blood pressure falls, signs of nephritis develop and the patient exhibits all the evidences of a severe and dangerous illness.

In every condition of disease in which there is uncertainty and dispute as to the etiologic factors involved, there is generally as much dispute and uncertainty as to treatment. It is safe to say that more remedies and remedial measures have been advanced for the alleviation of this condition than for that of any other obstetric complication encountered. When this is so it generally follows that no one line of treatment is applicable to any series of cases. In considering the treatment of this complication the injunction of the late Dr. Delafield in regard to the treatment of pneumonia—"Treat the patient and not the disease"—is particularly appropriate.

Naturally our first thought is prevention. Rigid prenatal care and the education of expectant mothers have done much to decrease the incidence of the more severe type of these toxemias, especially eclampsia. In an article on eclampsia, Havis and Harras report that in their service at the Lying-In Hospital, in 1914, out of a total of about 5000 cases, they



had 57 of eclampsia. This proportion gradually decreased until in 1922, in about 5000 cases they had but 8 of eclampsia, and in 1925 they had 12 cases in about the same number of patients. This remarkable improvement they ascribed to more careful antepartum observation and treatment and more intelligent coöperation of the patient. They have been thus led to make the observation that the time to treat these toxemias is before they begin.

Every pregnant woman should be subjected to a thorough physical examination and as much study should be given her case as would be given to a prospective surgical risk. This should be done as routine, whether there is history of vomiting or not. Ocular disturbances, nasopharyngeal irritation, the condition of the mouth and teeth, organic disease of the chest and gastro-intestinal tract, renal disease, displacements of the uterus, stenosis and erosions of the cervix should all be looked for and, if found, appropriate treatment instituted. Erosions of the cervix, with leukorrhea, are especially irritating during pregnancy and their treatment with local applications of silver nitrate or mercurochrome has produced markedly beneficial results. The stability of the nervous systems of these patients should be particularly investigated. Many of them, especially primiparas, have been frightened by information imparted by their friends, as to the serious consequences of pregnancy. They become apprehensive and their morale is so lowered that they are the more susceptible to reflex nervous disturbances. Directions as to the routine hygienic measures of pregnancy, such as proper dress, well balanced diet, proper evacuation of the bowels, the necessity and importance of routine urinalyses, the significance of regular blood pressure readings, regulation of exercise and abstinence from intercourse is important. We should lay particular stress upon the necessity of regular examination of the urine and blood pressure observations.

Rest, in addition to the ordinary sleeping period, is helpful. Breakfast in bed, the patient remaining in bed for about 2 hours afterwards, is beneficial in the mild cases. On arising she should be instructed to go about

her activities in a quiet leisurely manner, avoiding undue exertion and excitement. Many patients under this plan of treatment will experience no other discomfort during the day. Others will have more or less persistent vomiting throughout the day. These patients should have further rest periods with frequent feedings, 6-7 meals daily. The diet should be rich in carbohydrates, including cereals, sugar, fruit juices, custards and chocolate. Even if vomiting occurs several times daily no loss of weight ensues, as much of the food and fluid is retained and the health is not impaired.

Many of these cases of vomiting subside as abruptly as they occur, while others, despite treatment, gradually merge into that more severe pernicious type of hyperemesis gravidarum. Patients are nervous, have been disturbed by previous treatment, their morale is low. Most of them have developed an acidosis and are more or less dehydrated. They must be placed in bed, preferably in a hospital, away from the attention and influence of their families, and all visitors must be excluded. All food by mouth is withheld. A soap water enema should be given twice daily. Glucose and soda bicarbonate, 10% of each, should be given per rectum every 4-6 hours, using about 8 oz. The restlessness should be combated with bromide or chloral, which can be given with the glucose solution and, if necessary, morphin may be given.

Titus has given some interesting data in an article on the intravenous use of glucose in hyperemesis. His experience has led him to conclude that the most effective results are obtained by the use of a 25% solution of glucose in distilled water. He begins the treatment early in what he terms the moderately severe cases and repeats it 2 or 3 times daily when necessary. He disagrees with Thalheimer as to the use of insulin adding in any way to the effect of the glucose. Many of the most severe cases will yield to this form of treatment so that at the end of 2-7 days food and water may be given by the mouth. As the output of urine increases and acidosis diminishes, the glucose may gradually be discontinued, and the food fluids increased.

Despite careful and persistent treatment

along these lines, a certain number of cases persist. The question of therapeutic abortion must be considered and it is always a vexing problem. When a patient does not yield to the treatment outlined, when there is no reduction in the acidosis, the urine output is gradually reduced and the blood pressure falls, these are indications that justify the induction of abortion.

¶ To summarize: (1) Every pregnant woman should be considered a potential case of toxemia. (2) Etiology of this complication is disputed. The generally accepted causes are (a) reflex neurotic disorders, (b) disorders of metabolism, (c) combination of both. (3) The growing fetus produces an increased demand on the glycogen storage capacity of the mother, thus causing a relative carbohydrate deficiency. (4) Vomiting produces lessened intake, both of food and water, and causes a real carbohydrate deficiency. (5) Every pregnant woman, whether vomiting or not, is entitled to as rigid a physical examination as a prospective surgical case is given. (6) Prompt and careful treatment of the mild case may prevent the more severe case. (7) Treatment should aim to (a) attain mental and physical rest, (b) combat acidosis and dehydration, (c) supply nutrition, and (d) assist the organs of elimination.

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## **PATHOLOGY AND PATHOGENESIS OF THE TOXEMIAS OF PREGNANCY**

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(In the beginning, the speaker desires to say that most of his paper consists of excerpts from Dr. James Ewing's article on "Toxemias of Pregnancy" as published in the American Journal of Medical Sciences, June, 1910.)

It is a curious maladjustment of Nature that places pregnancy among conditions difficult to separate from the pathologic. We are at times accustomed to refer the high morbidity of gestation to influences of modern life, and love to refer to the Indian women who overtook the moving caravans of their tribes after a brief delay for parturition, but history says little about the women who never

caught up with the caravan. However, the human family is comparatively fortunate in many of its natural relations to propagation of the species when there is considered a certain lethal tendency existing in the animal kingdom, reaching its acme in some orders of insects in which ovulation necessarily entails death.

It has been an established fact for the past number of years that the liver in pregnancy constantly shows in some degree fatty degeneration of central portions of lobules, limitation of glycogen to the peripheral portions, and bile stasis, and these changes explain the functional disorders which consist in diminished capacity to metabolize carbohydrates, a tendency toward glycosuria, and lessened detoxicating power. Anatomic studies long ago pointed to the kidney as the organ most liable to suffer damage and most responsible for the characteristic grave disorders of gestation, and the kidney of pregnancy is firmly established as a very common pathologic condition, consisting essentially of a definite grade of fatty degeneration, which forms a background for the more severe lesions often encountered in disease, and which include acute degeneration, exudative nephritis, glomerulonephritis, or widespread necrosis, reaching at times almost complete destruction of the organ. There are, thus, as very common changes in what passes as normal pregnancy, lesions in the chief excretory organ, the kidney, in the main organ of metabolism, the liver; and we cannot overlook functional instability of the nervous system, the great organ of the expression of symptoms.

Starting from the basis of these essential disturbances of structure and function of the organs, the pronounced clinical forms of the toxemia of pregnancy show striking variations, which tend to impress the observer as wholly different diseases. Ordinary and pernicious vomiting, acute yellow atrophy, malignant jaundice, and eclampsia would seem, superficially, to have little relation to one another, but persistent vomiting, acute yellow atrophy and eclampsia are closely related toxic conditions of metabolic and chiefly of hepatic origin.



Regarding the relation of toxic and other forms of vomiting, it is clear that any cause of vomiting may be operative in pregnancy. Yet the characteristic hyperemesis of gestation is a very definite clinical entity, and the only safe position to take is that it is always of toxic origin, and that an anatomic basis of the disease is found in the parenchymatous degeneration of the liver and kidneys, which there is abundant reason for believing is present in every such case. It is especially important to urge that the severe and persistent cases of characteristic vomiting are always of autotoxic origin, notwithstanding the fact that they may cease after apparently trivial procedures—autotoxic in the fact that there is something in gestation that seems to call for a readjustment of metabolic processes. From the moment of conception there often seems to be a distinct reduction in the capacity to digest and adapt alien proteins, and intestinal putrefaction figures prominently in a considerable group of cases with high and variable indicanuria. With a liver defective in metabolic, detoxicating and biliary functions, a rich protein diet is imperfectly digested and metabolized, indol and other putrefactive products are formed in excess, and in turn damage the liver still further, so that a vicious circle of influences is established leading at times to some very severe forms of auto-intoxication. The element of starvation is of undoubted importance in some patients, and indeed the clinical picture is sometimes laid to this factor, but neither the clinical symptoms nor the pathologic anatomy of this toxemia are those of pure starvation as it occurs in other subjects. Starvation is not marked by persistent vomiting, pruritis, salivation, jaundice, and a fatal course in 10-14 days. The organs in fatal starvation do not show extensive grades of fatty degeneration with necrosis of large portions of the liver lobules or advanced hepatic atrophy. They show simple atrophy of liver cords, granular degeneration, and focal necrosis.

Regarding the close relation of acute fatal hyperemesis and acute yellow atrophy, the evidence seems to be conclusive. Clinically, hyperemesis pursues an acute or fulminant,

a subacute, or a chronic course. In the fulminant case one often finds the liver small, of greatly reduced consistence, with extensive fatty degeneration, and central or zonal necrosis. There must be some additional factor to account for the widespread complete destruction of liver tissue seen in many cases of acute yellow atrophy, and this factor may possibly be found in the solvent action of extravasated bile. With the exception of jaundice and complete destruction of liver tissue, hyperemesis and acute yellow atrophy arise under similar conditions in pregnancy, pursue much the same course, and intermediate cases between the typical forms, both clinical and anatomic are occasionally observed. While 60% of the cases of hyperemesis, it is said, recover, there are certain sequels which are attached to the condition. It would appear doubtful if the patient ever fully recovers during gestation, and premature aging of the child-bearing woman may in large part be due to repeated auto-intoxication during pregnancy. In the maternal organism the most important sequel of toxemia in the early months is nephritis in the later months. In cases of eclampsia in which nephritis is nearly constant, a history of previous toxemia can nearly always be established. In a third group of cases, toxemia continues up to the onset of eclampsia. Although it is impossible to define the exact nature of this connection, there are a number of observations which show that several of the factors concerned in hepatic toxemia act as nephrotoxic agents. There is considerable evidence to show that the acidosis of early toxemia may contribute to the albuminuria of later months. In dogs whose livers had been injured by potassium cyanide or chloroform, numerous investigators have found that small doses of indol caused severe damage to the kidney. In hepatic toxemia with intestinal putrefaction similar conditions exist, favoring unusual toxic effects on the kidney from indol and other intestinal poisons. It is a well-known fact that in typhoid fever convalescents, an early ingestion of meat may be followed by excessive indicanuria, excretion of unchanged amino-acids of the food, and albuminuria. There is here an obvious parallel with the ex-

cessive meat diet in which many women indulge after the first relief from the early vomiting of pregnancy. While none or all of these factors may fully explain the relation between nephritis and toxemia, they may render more acceptable the view that such a relation exists.

The late nephritis of pregnancy, whatever its origin, becomes of great importance in its relation to eclampsia. The problem of the pathogenesis of this disease still seems far from complete solution. The transfer of interest from the kidney to the liver as the organ chiefly responsible, the search for a specific poison in the placenta or syncytium, the inculcation of the fetus as the source of the poison, and the numerous expedients employed to reproduce the disease are familiar phases of the history of research in this field. Time forbids a full discussion of the significance of the hepatic lesions, but I may mention some of the features of the pathologic anatomy of toxemia which warn against separating eclampsia on account of its peculiar hepatitis. The typical eclamptic liver is found chiefly in rapidly fatal cases. If the disease is prolonged, the convulsions not prominent, or if jaundice be present, one is apt to find the hepatic lesion indistinguishable from that seen in some cases which, on account of the absence of convulsions, are called acute yellow atrophy. On the other hand, convulsions occur in some cases in which the hepatic lesion is typical of acute yellow atrophy. When one inquires into the mode of origin of the capillary thrombosis of the liver, one finds that an autolysis of the liver with injury of the endothelial cells is probably an essential underlying condition. It is believed, therefore, that an acute degeneration of the liver, arising in the course of acute disturbance of its metabolic functions, is the essential part of the hepatic changes in eclampsia, and that the capillary thromboses are more secondary results of the action of a blood-coagulating agent in the liver and other organs.

The exact mode of origin of the eclamptic seizure still remains the obscure problem, but that it develops through an abrupt disturbance of metabolic functions is a view toward which

attention is now generally directed. Many investigators have done much toward establishing this hypothesis, by showing the immense reduction in the so-called oxidative functions of the body, as indicated in the high ammonia and unoxidized sulphur in the urine. The metabolic disturbance appears to have the same general characters as in other forms of the toxemia of pregnancy, but it acts more rapidly and in an organism suffering from nephritis. During the eclamptic seizure, 3 definite effects are produced—a remarkable rise in the blood pressure, a pronounced injury to the nervous system, and coagulation of the excessive fibrinogen of the blood. That these effects are due to certain agents arising in the course of disturbed metabolism there can be little doubt. In some predisposed subjects, the eclamptic seizure arises shortly after the ingestion of a full meal rich in meat. Here one looks naturally among the products of protein digestion for the toxic agent. Ammonia, amino-acids, and xanthin may be inculcated, for these are incompletely metabolized by the injured liver, and imperfectly eliminated by the kidneys. Investigators have been much impressed by the rapid rise in the urinary ammonia during the eclamptic seizure, and its rapid fall as the patient improved.

This rise in the ammonia may be overlooked unless one examines the urine at 3 or 6 hour intervals. It seems to be unaccompanied by corresponding rise in the acetone bodies. It is possible that acute ammonia poisoning may be concerned in the symptoms of such cases. Ammonia is highly diffusible, raises blood pressure, is a violent nerve poison, and its effects pass off rapidly. So far as I know it does not facilitate blood coagulation, but it causes severe degeneration of organ cells, and probably of leukocytes. There have been a few criticisms of this opinion, but no definite refutation of its experimental basis. Ammonia poisoning is perhaps incapable of explaining all the symptoms of eclampsia, but that it figures in the convulsions is a worthy hypothesis.

Notwithstanding the obscurities that still exist, it must be admitted that the past 2 decades have witnessed important progress in



our knowledge of the peculiar auto-intoxications of pregnancy. The earlier studies in pathologic anatomy have been reviewed, extended, and systematized, and the interpretations of lesions have been rendered more significant. The recognition of clinical symptoms, especially their wide diversity, has been facilitated, and the true import of early signs has been much more widely accepted and, finally, the indications for treatment have been more clearly defined. Doubtless there are necessarily fatal forms and stages of all types of toxemia, but with the great majority of patients, the relief of acidosis, the hygiene of the intestine and correction of indicanuria, the careful control of the diet, with reduction or exclusion of proteins, should control the milder cases and greatly reduce the mortality in the severe forms of the disease.

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## ECLAMPSIA

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Eclampsia is an acute toxemia occurring in pregnant, parturient or puerperal women, and is accompanied by clonic and tonic convulsions, during which there is loss of consciousness followed by more or less complete coma frequently resulting in death.

In a series of 120,000 deliveries in the New York Lying-In Hospital, eclampsia occurred about once in every 185 cases, with a mortality of 9.6%. Between January, 1913, and December, 1922, there were 23,630 cases admitted to the Glasgow Royal Maternity Hospital. Of this number, 814 cases of eclampsia were reported, with a mortality of 22.4%. At the Sloane Hospital, New York City, in a series of 7384 consecutive deliveries, 54 cases of eclampsia were reported, with a mortality of 25%.

In the 150,014 cases cited, eclampsia occurred once in every 178.2 cases, so we may expect to have at least 1 eclamptic in every 200 consecutive labors. It occurs much more frequent in primigravidas than in multiparas and appears typically after the twenty-eighth week, though cases have been recorded as early

as the tenth week. Onset takes place in 20% of cases during pregnancy, in 60% during labor, and in 20% during the puerperium. It is more prone to occur where the uterus is overdistended, as in twin pregnancies.

The mortality of the children of eclamptic mothers, before and during delivery, is about 40%. Those born alive are often endangered by intra-uterine asphyxia, the effects of which are still evident during the first days of life, but if they survive the first few days, their fate is not influenced by the eclampsia and the increased birth trauma.

The etiology of eclampsia is not known, although a great deal of work has been done on the subject and many theories advanced as to the cause. Reviewing these, we find several which may have, in part, a definite bearing on the whole.

Undoubtedly there is a toxic substance (or substances) elaborated which gives rise to the syndrome known as eclampsia. This substance is probably an early split product of the protein molecule. The source of the toxin is not single. There are 3 or more ports of entrance of the poison into the maternal circulation: (1) from autolysis of degenerating placenta, (2) from absorption through the large intestine of split products of bacterial origin, and (3) from primary foci of infection. The maternal circulation is so overwhelmed by those by-products that its power to neutralize them is diminished and thus they produce injurious effects which result in eclampsia.

A number of observers have been convinced that the cause of eclampsia could be found in incompatibility between the fetal and maternal blood. Further investigation, however, tends to show that the blood group has no influence. According to Young, when interference with the maternal blood supply causes infarcts and partial separation of the placenta, autolysis of the placenta liberates toxic substances and toxemia ensues.

The influence of diet and faulty elimination has practically been proved by the clinical results of treatment directed toward the correction of errors in these particulars. Especially was this true in Germany during the war, when

eclampsia was much less frequent. At that time there was little fat and protein to be had and pregnant women were forced to live on a low protein diet.

Pathology of every endocrin gland has been suggested as a cause of eclampsia. It is believed by some that the physiologic hypertrophy of the thyroid during pregnancy serves to promote the increased liver metabolism made necessary by pregnancy. When the thyroid does not enlarge during pregnancy, toxemia may be anticipated.

Stroganoff has shown the similarity between eclampsia and acute infections, noting the mode of onset, the effect on all parenchymatous organs, the fact that there seems to be an epidemic form, and that one attack seems to confer immunity.

With the constant effort that is being made, we may hope that the future will reveal the real cause of eclampsia, and with it the true basis for treatment.

Two distinct types of eclampsia are known: (1) The fulminating type. (2) The slow type, developing gradually from a preëclamptic toxemia. In the former type the first indication of presence of the disease may be the actual eclamptic seizure. In most cases of this type, however, there is a brief premonitory disturbance, such as sudden blindness. In the latter type there are definite warning symptoms of an acute attack. The symptoms of preëclamptic toxemia become more pronounced; headache become more severe and constant; the patient complains of flashes of light before her eyes, the eyelids appear puffy. Hemianopsia or diplopia may occur, associated, on ophthalmoscopic examination, with edema only, or sometimes with partial separation of the retina. There may be epigastric pain and often vomiting. Edema of the legs increases. The urine is very much reduced in amount. Albumin is present in large amount, the precipitate formed on boiling is usually quite solid. Blood is almost always present, and casts of all types, especially hyaline and granular, may be present. The total nitrogen is very much diminished. The urea excretion is reduced, the urea nitrogen forming less than 50 instead of 80%. Uric acid and creatinin

are increased, chlorides diminished. Acetone and diacetic acid are usually present. The diastatic content of the urine is very high and may reach 200, instead of the normal 10 to 30 units. Blood pressure rises to 200 or 240, the patient becomes very restless, temperature may rise, and we have the onset of convulsions and coma.

The blood chemistry shows a marked increase in the uric acid content, increase in sugar and lactic acid, with, at the same time, in extreme cases, a reduction in the carbon dioxide combining power to such an extent as to offer a distinct menace to life from acidosis. In general it may be said that the changes noted in eclampsia are very striking and do not in any way bear out the original supposition that it is associated with nitrogenous retention, but indicate the existence of a profound disturbance of metabolism.

Diagnosis of the acute state offers little difficulty. With epileptic convulsions there is the history of epilepsy. Difficulty, however, may arise when coma develops without convulsions, for the coma may be due to an overlooked diabetes or cerebral hemorrhage. In nephritic toxemia the condition usually appears earlier in pregnancy and the history and blood chemistry will help to differentiate; signs of chronic nephritis are present after the pregnancy, and the toxemia reappears with a succeeding pregnancy.

Williams, in a recent article, states that at a return clinic, when he analyzed the results in patients who had been discharged with a diagnosis of preëclamptic toxemia he found that 60% presented signs of chronic nephritis, notwithstanding the fact that on discharge the blood pressure had fallen to normal and the urine was free from abnormal constituents. As a result of these findings, he states that preëclamptic toxemia is a relatively rare condition and does not exceed 5% of all late toxemias, while the great bulk of the cases that were formerly so designated he now places in the group which he calls low reserve kidney.

The prognosis is the more grave the earlier the attack in pregnancy. The danger increases with the number of convulsions. High tem-



perature and small and feeble pulse are bad signs. Profound coma, suppression of urine or marked icterus, indicate an unfavorable prognosis. A normal or subnormal leukocyte count indicates a fatal prognosis, while a high count if persistent is favorable.

Considering the treatment of eclampsia, we find obstetricians are divided into 2 schools, one believing that removal of the products of conception is all important, and the other preferring to treat the toxemia primarily, leaving evacuation of the uterus to nature, or to nature assisted. The most effective treatment at present consists in prevention. For this reason the greatest possible extension of intelligent prenatal care is essential to the early recognition and treatment of the several varieties of toxemia of pregnancy. Frequent routine examination of the urine should be made, blood pressure determined, and the general health of the patient watched. Occasionally a case of eclampsia will develop very suddenly, even when the patient is receiving the best prenatal care. These cases cannot be avoided, but if all pregnant women were given the care they deserve, the incidence of eclampsia would be greatly reduced. The majority of serious cases occur in neglected patients or patients who have failed to report for examinations.

With regard to cesarean section in the treatment of eclampsia, opinion is very much divided. Shands advocates its more frequent use in selected cases. Cooke says, "Cesarean section is called for when the toxemia is very severe and labor not in progress, if conditions continue to grow rapidly worse under conservative treatment. In the milder forms, treatment of the toxemia followed, if necessary, by the induction of labor is best, but when the patient does not improve, especially if some other relative indication exists, cesarean section is the operation of choice." Kane reserves cesarean section for the primipara with an undilated cervix in the occasional case which does not improve under conservative treatment. He prefers to allow labor to proceed normally and if the second stage is not rapid, hasten delivery after full dilatation

of the cervix, by forceps or version. Williams claims better results with conservative treatment. He is of the opinion that the anesthetic is partly responsible for the increased mortality (30%) of radical delivery, as chloroform, ether, nitrous oxide and ethylene produce changes in the blood suggestive of those noted in eclampsia: namely, a definite increase in uric acid, sugar, lactic acid and inorganic phosphorus, and a decrease in the carbon dioxide combining power. Thus an additional toxemia is superimposed on that associated with disease.

H. P. Wilson of California has recently reported his results in 14 cases of eclampsia with no deaths. Since these patients either have, or are bordering on, acidosis, he first determines the carbon dioxide combining power, then gives sodium bicarbonate in 3% solution intravenously alone or associated with 10% glucose. This dilutes, neutralizes the acid toxins, stimulates elimination and corrects the acidosis. The amount to be given will, of course, vary with each individual case depending on the degree of acidosis and must be determined by frequent estimation of the carbon dioxide combining power, so that an alkalosis is not produced. He considers 10 gm. sodium bicarbonate a perfectly safe initial dose to give a patient when the carbon dioxide combining power has not been determined. This procedure, he considers, makes cesarean section a much safer procedure, as the patient is fortified against the increased acidosis produced by the anesthetic.

Magnesium sulphate is used by many for the control of eclamptic convulsions, 10 c.c. 25% solution being given intravenously. It relaxes the patient, decreases intracranial pressure by relieving cerebral edema, stimulates diuresis, and aids in diminution of the general edema. Along with this, other eliminative measures, such as catharsis, phlebotomy, lavage, and colonic irrigations are used.

For some years, Stroganoff has been reporting wonderful results obtained with morphin and chloral, and by waiting until the cervix is fully dilated before resorting to delivery.

Williams, since 1922, has treated all cases conservatively and now uses a modified Stroganoff treatment. I will give you his treatment in detail.

On admission patient is placed in a quiet, darkened room and disturbed as little as possible. Special nurse continuously until out of coma. Morphine,  $\frac{1}{4}$  gr., hypodermically immediately. Catheterized, examined medically and obstetrically, and bled for 200 c.c. under nitrous oxide anesthesia if conscious. Placed on one side, with foot of bed elevated so long as coma persists. Mucus swabbed from pharynx as it collects. Water given freely while conscious. If patient cannot drink on account of coma or lack of desire, the intravenous administration of 500 c.c. 5% glucose solution should be considered. Not to be delivered until after cervix is fully dilated, and then by the simplest operative means unless spontaneous delivery seems imminent. No chloroform to be used. Examination of blood.

One hour after admission, if comatose, 2 gm. chloral hydrate to be given in 100 c.c. physiologic sodium chloride solution, and the same quantity of milk by rectum. If conscious, the chloral can be administered by mouth in 100 c.c. milk.

Three hours after admission  $\frac{1}{4}$  gr. morphine hypodermically; 7 hours after admission, 2 gm. chloral hydrate, as above; 13 hours after admission 1.5 gm. chloral hydrate, as above; 21 hours after admission 1.5 gm. chloral hydrate.

Catharsis, sweating or venesection in excess of 200 c.c. must not be employed. The venesection is employed only to obtain blood for examination, not for therapeutic purposes.

With this conservative type of treatment Williams claims better results than he obtained with the more radical treatment; nevertheless the mortality still remains high.

It is evident that the treatment of eclampsia must remain empiric and relatively unsatisfactory until the actual cause of the disease is discovered.

### ON THRIFT

I know that thrift should be the poor man's motto

That spending is the mark of foolish pride,

I know the man who saves because he's got to  
May some day have a fortune laid aside.

I read the tales of men who've made success

And learn that thrift was mainly what has  
swayed 'em,

At least, according to the writer's guesses,  
Of how they made 'em.

But now and then, when forth from home I've  
wandered

To learn what lay beyond my garden wall,

A tidy sum of money I have squandered

That I could really not afford at all.

This course of all my cash in hand bereft me,

But though without a cent I faced the morrow,

The thought that I might die a pauper left me

Quite free from sorrow.

Life may be brief, but labor seems unending,

It's pleasant to gain wealth, but on the whole  
I rather think a yearly spree of spending

May be a useful tonic for the soul.

No bank I'll ever fill with heaps of treasure,

But I have given life a good square trial,

And haven't found the much applauded pleasure  
Of self-denial.

This theory may land me in the poorhouse

When age creeps up with slow and crafty  
stealth,

But better that than some Herr Doktor's Kur-  
Haus

Where rich men go to mend their shattered  
health.

I haven't always toiled when days were sunny;

I've had my chance, and haply I destroyed it.

I've wasted quite a little bit of money,

But I enjoyed it.

(James J. Montague).



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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

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## TRISTATE MEDICAL CONFERENCE

In this issue of the Journal we are publishing one-half of the stenographer's report of proceedings of the conference held at Scranton in June; the second portion, dealing with efforts of these 3 states to deal with abolition of diphtheria, being held over for publication next month. It is a pleasure to observe the steadily growing importance of these conferences and to note the improved character and increasing value of the work successively presented. At the recent meeting only 2 topics, were considered, but the happen to be topics of vital import to the Medical Society of New Jersey. Every member of this society can profitably read Dr. Hammond's sketch (page 000) of the lay educational work of other states, and his outline of procedure for such campaigns. In view, particularly, of the fact that our own state society decided at its recent meeting to expand its general educational program, members should familiarize themselves with the details of this work and prepare to assist in its application to their local territory.

## ANNUAL TRANSACTIONS

In accordance with custom, the "Transactions of the 161st Annual Meeting of the Medical Society of New Jersey" held at Atlantic City in June, are being published as a "Supplement" to the August number of the Journal. Those who attended felt that this was one of the most successful meetings of recent years. Those who failed to attend will find much reading matter of personal import

in the published proceedings; even those who participated will possibly benefit by careful reading of the printed reports and discussions, as that will enable them to acquire more complete knowledge and clearer comprehension of all the details.

Some of the problems dealt with bear a very definite relation to each member's personal business and professional welfare, and while it is scarcely possible to editorially direct attention to each of these specific items, we shall take the liberty of mentioning a few.

The report of the State Board of Medical Examiners is not only an interesting account of some of the difficulties encountered in enforcing the Medical Practice Act, but it presents a very logical argument in favor of an amendment, or a new law, that will require annual registration of all practicing physicians. The Board asks support of the organized medical profession when this legislation shall be presented. The House of Delegates gave a general approval and referred the matter to the Welfare Committee for action. It is not very long since the society strongly opposed a similar proposition; at the recent meeting there was apparently unanimous approval. Doubtless the action and experience of the neighboring states of Pennsylvania and New York have effected a change of opinion in this state. However, if you have any personal views to express now is the time to make them known.

We are very appreciative of the endorsement given to the Journal; especially of the generally expressed desire to aid its further development.

## In Memoriam

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STROCK, Daniel, 326 Cooper Street, Camden, New Jersey, died of apoplexy Sunday, July 10, 1927, in the seventy-seventh year of his life. Despite advanced age, Dr. Strock had enjoyed good health until quite recently, was mentally alert until the end, and his interest in medical affairs and devotion



to professional duties never flagged for a moment. A physician of the highest type, learned in the science and art of medicine, cultered in the broadest sense, a polished public speaker, a charming companion and devoted friend, truly—"a gentleman of the old school". For many years past the "nestor" of Camden County physicians, an Ex-President and honored Trustee of the Medical Society of New Jersey. Dr. Strock leaves behind him a host of mourning professional brethren and admiring laymen who loved him for all that he was and did.



The funeral services were attended by a large delegation of physicians from Camden City and County, and the officers of the State Medical Society, hastily notified, were represented by Drs. Mulford, Morrison, Mecray, Underwood, Hunter and Reik.

Born at Lambertville, the son of a minister of the gospel, he first picked the newspaper field for professional work but later developed an interest in medicine and graduated from Jefferson Medical College in 1877. For five years he practiced in Philadelphia, but was attracted to Camden and opened an office at 818 Federal Street, where he was to remain for a generation.

Not only did he build an extensive practice but he devoted much of his time to the development of Cooper Hospital in the 80's and 90's and for years was on the surgical staff. His fellow physicians honored him by making him President of the County Medical and later of the State Society.

When typhoid fever was raging in Camden and as high as 104 cases of that malady were reported in a month, Dr. Strock was one of the leaders of the medical fraternity against the old system of taking polluted water from the Delaware. He spoke and wrote on the subject and was influential in bringing about the decision, in the 90's, to build the present artesian water supply.

During the World War, Dr. Strock was one of the leading factors in getting things ready back of the lines. As President of the Camden County Red Cross Society he directed activities in every section of the county and effected a thorough organization which resulted in ample medical supplies and other necessities being forwarded to the boys from home battling "over there".

In later years he had been medical adviser to Public Service and President of the New Jersey State Sanitary Society.

Dr. Strock was a "many-sided man". Not only was he learned in the medical profession, but likewise an amateur musician of note and a skilled pianist. He was one of the organizers and staunch supporters of Camden Chapter of the National Association of Organists. He was interested in astronomy, had his own telescope and sometimes made long trips to obtain a view of an eclipse or other celestial phenomenon. A fluent speaker, Dr. Strock frequently addressed meetings on timely public subjects or those of an academic character. His pleasing personality won a host of old time friends that he retained through the years.

#### EPITAPH

By Thomas Huxley

And if there be no meeting past the grave.  
If all is silence, darkness, yet 'tis rest.  
Be not afraid, ye waiting hearts that weep,  
For God still giveth His beloved sleep:  
And if an endless sleep he wills,  
So best.

SINCLAIR, Robert Rees, 180 Elm Street, Westfield, died July 11, 1927, after a short period of illness, at the age of 53.

Dr. Sinclair was a graduate of the College of Physicians and Surgeons, of New York. After serving in the Elizabeth (N. J.) General Hospital, he began to practice in Westfield and continued until last April.

Twenty-four years ago Dr. Sinclair married Miss Beatrice Hanan of Danbury, Conn., who died in February, 1925. Their children, Robert Rees Jr. and Shirley, and Dr. Sinclair's mother, Mrs. Jemima M. Sinclair, survive him.

Dr. Sinclair was a charter member of the People's Bank and Trust Company of Westfield, and a member of the local Rotary Club, the Laurentia Club of Canada, and the County and State Medical Societies. He was a thirty-second degree Mason, a Shriner and a member of the Independent Order of Foresters.

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RUSSELL, Anthony B., of 72 William Street, East Orange, died of angina pectoris June 30, 1927, at the age of 55 years

Born in Middleburg, Virginia, and acquiring his education in that state, he received his degree of Doctor of Medicine from the University of Virginia and entered upon the practice of his profession in New Jersey 28 years ago.

Dr. Russell was a member of the staff of the Presbyterian Hospital of East Orange, a member of Essex County, New Jersey State, and American Medical Associations; a Mason; and, an Elk.

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WESTCOTT, William A., of Berlin, New Jersey, died at his home July 19, 1927, at the age of 70 years. His death was not unexpected, as he had been suffering from a chronic cardiac affection for some time.

Born in Camden County in 1857, Dr. Westcott acquired his medical training at Jefferson Medical College, graduating in 1883. Besides attending to a large general practice he had rendered faithful public service as inspector of schools, and as a member of the State Board of Health.

Dr. Westcott conducted the general practice of a country doctor at Berlin all his life. In politics, he was a Democrat. In 1910 he was appointed a member of the State Board of Health, and at his death was one of eight physicians in Camden County holding a special health officer's license. He was a member of the District Medical Society of Camden County, and served that body as president in 1899. He was medical inspector of schools for Berlin and surrounding townships for many years. During the war, he was a member of the Volunteer Medical Service Corps. He was a life delegate to the New Jersey Medical Society, a life member of the Philadelphia Medical Club, a member of the American Medical Association and of the Alumni Club of Jefferson Medical College.



## Medical Ethics

### AM I MY BROTHER'S KEEPER?

(In the presentation of serial articles relating to ethics it is very difficult to avoid the appearance of "preaching," and, however good our intentions or however innocent we may be of any sense of superiority, the imputation of being a "reformer" may sometimes be the reward of the author of such articles. It is gratifying to note that during the past year ethics, and the necessity for teaching ethics in medical schools, has become a "burning question" within the profession, as indicated by the number of articles on these subjects appearing monthly in our leading medical journals. Considered in connection with the profession's activity in behalf of the public welfare, especially with reference to health legislation, the attitude of the physician in these efforts to abolish, or at least reduce, his own money-making possibilities, and the extent to which he must at times go to force benefits upon the careless citizen, leads not infrequently to the question at the head of this column.

We have said so much heretofore in support of the "yes" answer to this question that it seems only fair to present something of this negative view. We are not converted, but a novel and unique argument in negation recently appeared and we take the liberty of presenting it as copied from "The Kalends of the Waverly Press"—a "house organ" of the Williams and Wilkins Company, publishers of medical and other scientific books and journals.)

### ON THE DEFENSE OF CAIN

By the Shop Philosopher

For many years now, the character of Cain has lain under a cloud. Along with Judas Iscariot, Benedict Arnold, Nero and many others he has been relegated to the Hall of Unsavory Reputations. It is high time that someone took in hand the task—probably thankless—of showing the true quality of the man.

I am not saying that Cain didn't have his weak points. He was rather too handy with a bludgeon to make an altogether agreeable companion. He was a man who had to be handled carefully, with whom one could not be straightforward in the fear he might become huffy or even unpleasantly violent—an annoying circumstance to be sure, yet a foible which many of my acquaintance share. Also he was a liar, was Cain. Nevertheless the very statement for which Cain is anathema should have earned him encomium.

Cain said: Am I my brother's keeper? It was a wise-crack, not a question and the implied sentiment has been declared abominable without, I contend, due deliberation. Having been once declared abominable each generation has rubber-stamped the dictum quite heedlessly, I am sure, and misled by the label of morality or righteousness. The

time has now come to show that while Cain's dialectic method leaves much to be desired, his basic philosophy is sound, and that he is entitled to a heap of credit for venturing a statement of his views.

By and large the concept, implanted in energetic souls, of being a keeper of one's brother, has played more hell with the world and society in general than could readily be estimated, even with the aid of logarithms. I need only point out that this concept is largely responsible for "movements," to provide a viewpoint from which the full horror of it may be perceived by any discriminating person.

I speak as one who has embraced, in times past, the notion that the responsibility for my brother's motives, behavior and well-being rested on my shoulders. I took it seriously. It is rather a satisfaction to record that my generic brother didn't. For this failure to see clearly I now murmur my confiteor. *Mea culpa, mea maxima culpa.* For observe how utterly abominable I must have rendered myself to my chance associates, while laboring under this delusion.

I have reached the mature conclusion that I am not my brother's keeper. Not as touching his "morals," or his behavior, in any case. As I believe in and would defend my own personal sovereignty, consistency forbids my endeavor to invade his under any pretext whatsoever. I must not beguile myself with the reflection that my interference is for his good, the peace of society or the glory of God. Because in the ultimate analysis I find these things are but empty phrases. It is not his good I am thinking of chiefly, despite my most ardent asseverations, but my own satisfaction in moulding him closer to my notions. It is not the peace of society, but my own peace of mind; not the glory of God but my own glory.

This brother of mine has a perfect title to go to hell, if he sees fit. If I should steer him into heaven it may, and quite likely will, prove to be his hell. Or what I regard as hell may be his heaven. "Right" and "wrong" are shrewd inventions of the dialecticians to be equivalents of "agree with me" or "disagree with me", to be used when the latter words seem too bold and crude, or too utterly ineffective. To say to a man "You do not agree with me" really has no kick, no punch, no wallop. He will merely say, "No, I don't" and that ends it. But if you alter the syllables—not the substance—and say "you are wrong," it is an immense satisfaction. You have belabored and belabeled him. And you have probably initiated a debate; for he, poor wretch, may not have the wit to see that you have

merely remarked the fact that you and he appear to be in disagreement.

You have also done something else. You have set yourself the task, since he is "wrong" of persuading him (if you can) or compelling him (if you have the power) to be "right." In either case, but especially in the latter you acquire a sense of superiority which is highly gratifying. Even if you fail to persuade or compel you can sprout wings on the strength of having done your duty. Let me take the whey out of your glee and the breadth from your phylacteries by giving you positive assurance that you have only made an exhibition of filthy manners. It will be understood that there is nothing personal in this. I am only using the word "you" in a general, almost a Pickwickian sense. But it gives the argument point.

Those who undertake the guidance and censorship of other people's lives, are, I am sure often animated by what passes for sincerity. Their very cocksureness is a factor in their general undesirability. It is not simply that they feel themselves always to be "right." All of us do that. The behavior we choose is chosen because it seems to us desirable, legitimate or harmless. The damage is done when we conceive that our notion of "right" has some absolute and objective validity; that the opposite to it must be "wrong" and consequently hideous, unlovely, evil, dangerous. It is probably this latter sensation which gives us the urge to correct the other fellow; in extenuation of which all too obvious interference in what is palpably none of our business, we flap the doodle and we cannot evade the burden of being our brother's keeper, for his good, the good of society, or of the order, or of the church, or whatever other motive will sound rational. It's a bully excuse and makes the getting of our own way positively virtuous. On such tenuous threads is virtue hung, indeed.

Cain was right. I am not my brother's keeper; and any attempt to so function is a rank usurpation. I am not responsible for his motives, morals and behavior, and any attempt to assume such responsibility puts me in the class of the murderer who must be restrained because he makes a bally nuisance of himself. I believe the world is slowly perceiving this. Hence the frequent: "You can't coerce people into being good." It is only a step to achieve the panoply of full independence for him. You can't, in good taste, annoy him with persistent persuasion either.

I cannot hope to maintain, save in a most restricted fashion, the sovereignty of my

person. But I can save some few crumbs of the sovereignty of my personality—nothing like complete independence of action of course, but some semblance of independent thinking. And as I hold that independence precious, I must decline to invade another's independence.

My brother can go to pot if he prefers. If he wants my counsel he can have it. But I won't thrust it on him. He can starve if he likes. If he asks for a share of my food, I'll give him what I can spare. But I must decline to uplift him; I must decline to instruct him in the joys of more refined food, furniture or art. If he wants to live in a mud hut he may, for all of me. It is no lazy streak which leads me to this conclusion, no lack of the sense of the seriousness of life. I have simply come to the conclusion that my brother doesn't want saving or uplifting. Or if he does, he wants his own brand, not mine. If he wants my brand, he can ask for it.

Cain, I salute you. You were a liar and a murderer, but I salute you. You were something of a coward too. This is a pity. For the banner you unfurled in the infancy of the race has been judged, not on its merits, but in the light of your shortcomings. Your brilliant idea has been excoriated as the idea of a murderer, liar and coward. Nevertheless you conceived the idea, and you are entitled to the credit for a really remarkable achievement. I salute you!

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## Special Article

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### REGULATION OF PHYSICIANS BY LAW

(Seventh Article)

Apropos of our recent article on personal liberty in the choice of a medical attendant and the companion fallacious notion that "healers" who limit their therapeutic attentions to bodily manipulation, or even to absent treatment, "do no harm if they do no good", we would direct attention to a news report that a chiropractor has recently surrendered himself to a police court with the announcement that he had just broken the back of a patient by a too strenuous treatment. While this is patently an extreme illustration of the folly of permitting uneducated and untrained practitioners to manipulate the bones and joints of the human body, applying brute force where—assuming that any manipulation was properly applicable—gentle, skillful movement is required, still, it is not at all uncommon



to hear the victims of osteopathy and chiropractic complaining of the effects of brutal treatment at the hands of such cultists. It is true that no one is required to consult an irregular healer; he generally does so voluntarily, and the penalty he pays may be looked upon as in some measure a just retribution. As such choice is usually made out of ignorance, however, perhaps it is our duty to continue efforts to enlighten that portion of the populace, and, further to attempt to safeguard such persons against their own folly by doing all we can to limit the opportunities for frauds and charlatans in general to prey upon him. We must at times question our duty in the matter, and anent that proposition we shall quote in full an editorial in the *Journal of the Indiana State Medical Association* (June, 1927, p. 228), entitled *Licensing Incompetency*.

"We sometimes wonder if it pays to make any effort to protect the public from incompetency in the treatment of human ills and deformities. Certainly we must admit that we have not gained much by legislation, except to make it more difficult for educated and well-trained medical men to secure legal recognition while at the same time the medical pretenders and representatives of several drugless schools of the healing art have managed to secure legal recognition in several states, and meet with little or no opposition in other states that as yet have not legally recognized them. It is a sad commentary upon the consistency of reasoning on the part of the public when men with little or no education and training as pertains to the human body in either health or disease are permitted to practice medicine and surgery without let or hindrance. We always have maintained that the fault lies with the regular medical profession in not pointing out to the public the dangers of such an attitude. In the commercial world we place a premium upon education, training and experience, and in consequence the incompetents in the commercial world receive little consideration. In the practice of medicine a standard of fitness does not seem to be recognized as necessary and a very large class of people fail to analyze the subject on its merits and act according to consistent and intelligent conclusions. It will require a large amount of education of the public to change the present trend of opinion, for we must admit that the poorly educated and untrained practitioners of every kind have been increasing in numbers, and there has been a steady increase in the amount and kind of legal recognition given them. As we often

have stated before, one of the features of this discussion that seems to have received scant attention is the damage done to the public, and particularly the ignorant and the poor, by permitting these pseudo doctors to practice upon the sick and suffering. In a very large measure the condition of affairs that confronts us today is due to the apathy and indifference of the medical profession. If education, training and experience count for anything in any line of work it must count for a great deal in the recognition and treatment of disease and faulty conditions of the human body. Some legislators and well-meaning persons very inconsistently have argued that the osteopaths, chiropractors, naturopaths and others of similar kind, who know little or nothing of disease conditions of the human body, cannot do harm for they only rub or massage and do not attempt to practice medicine in all that goes to make up the regular physician. From the very first we have maintained that these pseudo-medical cults are aiming to get into the medical profession through the back door, or perhaps we should say aiming to secure legal recognition for full rights and privileges of physicians without going through the usual requirements. A few years ago the osteopaths asked the Indiana legislature for legal recognition for the practicing of osteopathy or drugless healing, and at that time they made the claim that they did not desire nor would they pretend to perform surgical operations, take care of women in childbirth, or prescribe or dispense drugs. They secured the desired recognition, only to come back later with the demand that they be licensed to do the very thing that they claimed they did not want to do, and for which they and everyone else know they are not adequately trained. Through clever manipulation and political jugglery they secured an amendment to the law, and now are permitted to attempt to do anything that any regular practitioner of medicine can do. We know and they know that they are not educated or trained to do surgery, obstetrics, nor prescribe drugs intelligently, and yet legally they are on the same par with all of the better educated and better trained medical men of the state. What has occurred in Indiana has occurred in other states, and concerning this matter we quote from the *Journal of the A. M. A.* of April 30, 1927, as follows:

Years ago osteopaths claimed that as they did not use drugs or perform surgical operations they were "not physicians" and were "not practicing medicine," and therefore were not subject to the laws and higher qualifications required of

physicians. They have now radically reversed their position and are demanding equal privileges with physicians, but apparently are still unable or unwilling to meet the higher standards of educational and professional training. As a result of such claims, osteopaths are now being licensed as physicians by the medical boards of Colorado, Massachusetts and Texas. This was true also in California until 3 years ago when, fretting under the restrictions of the medical board, the osteopaths secured an amendment to the California medical practice act, creating a separate board of osteopaths to license them as physicians under a less rigid routine than that applying to graduates of medical schools. While the amendment gives the osteopaths equal privileges with physicians, it does not guarantee equally expert knowledge or training. To make them equal in both respects does not require separate boards or varying standards of qualifications. As a matter of fact, no osteopathic college has entrance requirements equal to those of medical schools, no osteopathic college has equally expert teachers and no osteopathic college provides equally efficient instruction in the differential diagnosis of diseases or in the many valuable methods of treating sick and injured people. Nevertheless, last year, 88 osteopaths were licensed in the 4 states named and given the same privileges as physicians.

We wish that we could be more optimistic concerning the outcome of all the efforts to destroy the educational standards which now apply to the practice of medicine, but we really can find little comfort in the knowledge that several states, our own included, actually have legalized incompetency and placed it on a par with the competency that goes with graduation from a Class A medical school. We also agree with the Journal of the A. M. A. when it says that the final solution of problems related to the practice of medicine depends upon the education of the public. When there is a general knowledge of the danger from illegal and incompetent practitioners, public opinion may favor better laws and the appointment of competent boards to enforce them. Up to the present time we have put forth but feeble efforts to change public opinion."

The experience referred to above, wherein a cult securing "limited license" privileges soon sought an extension that would have allowed such registrants to practice on an equality with regular physicians, was duplicated in this state; at the last session of our General Assembly the osteopaths secured introduction of a Bill designed to confer upon the possessors of limited licenses the further right to practice obstetrics and enter the broader field of the general surgeon. The state society's educational program, within the profession and to the laity, is directed toward a recognition of these several points.

(To be continued)

## In Lighter Vein

**Deadly Decoration**—"Radiator caps should be more artistic. The cap's a prominent feature."

"Yes, it's about the first thing that strikes you."  
—American Boy.

**Poor Scenario**—"My objection to real life," says the heroine of a Scotch novel, "is that it isn't true to the moving-pictures."—Boston Transcript.

A drug store advocates preparedness with this sign above its soda fountain: "Take home a brick. You may have company."—Outlook.

**Less Cry More Wool**—An advertisement for a lecture says he "speaks straight from the shoulder." Too bad some of these talks can't originate a little higher up.—San Francisco News.

**Logical Thinking**—Frater: "Isn't that hair tonic in the green bottle?"

Also: "No, that's mucilage."

Frater: "I guess that's why I can't get my cap off!"—Wash. Cougar's Paw.

**So Sudden**—Johnny, ten years old, applied for a job as grocery boy for the summer. The grocer wanted a serious-minded youth, so he put Johnny to a little test.

"Well, my boy, what would you do with a million dollars?" he asked.

"Oh, gee, I don't know—I wasn't expecting so much at the start."—Goblin.

The French Academy of Agriculture has found that Burgundy is an excellent tonic for young chickens. It might help some of the old hens in this country, too.—Judge.

### A Deal in Testimonials

First Big League Ball Player: Who are you goin' to be with this season?

Second B. L. B. P.: Dunno yet. Just heard that Nuxated Iron is trying to trade me to Fleischmann Yeast for two pitchers and an outfielder.

—Carnegie Tech. Puppet.

### Prolonged Politeness

"So you haint spoken t' your wife fer three years? Why?" said Judge Pussey t' a husband this mornin', an' th' husband replied, "I didn't want t' interrupt her."—Abe Martin in the New York World.

### Detour

We have just been apprised of a taxi driver whose fare, a gentleman slightly unsteady, gave the order to drive "to the end of the rainbow." The chauffeur was acquiescent—until he began to worry about the customer's ability to pay. Then he stopped the taxi, opened the door and said cheerily:

"Well, here we are, sir!"

"Is this the end of the rainbow?" inquired the fare.

"Well, not quite, sir," was his ingenious reply. "The end is really one block west, but the street's torn up and you'll have to get out here."—New Yorker.



## Observations from the Lighthouse

Physiotherapy is rapidly coming into recognition as an adjunct to medical science, if we may judge by the increasing number of papers on the subject appearing in medical literature. In the matter of joint affections and industrial injuries, practically the old methods of immobilization by splints and prolonged retraining of parts afterward seem to be giving way to the use of electricity for its immediate chemical and mechanical effects. It is claimed by many writers that the change in therapy is resulting in tremendous economic gains.

### Practical Application of Physical Therapy

Taking up particularly the phase of electrotherapy, Joseph E. G. Waddington (Arch. Phys. Ther., 8:237, May, 1927) urges a clear understanding of the varied uses of the apparatus for such treatments. It should be noted first of all, he says, that no matter what the treatment, it will fall under one of 3 divisions: chemical, thermal or mechanical. The galvanic or direct current is essentially chemical in action; the chief characteristic of diathermy, or high frequency current, is that of heat. D'Arsonval, Tesla, Oudin are very ambiguous terms because so inexpertly understood by their users. It would be much simpler to distinguish the biterminal high frequency current of the primary from the biterminal and uniterminal high frequency current of the secondary. The diathermic current is heat current, not because it is heat itself, but because the high frequency vibrations, meeting with resistance, are then converted into heat. Diathermy is the only means by which intense heat may be safely inducted within the tissues without unduly affecting the skin. As mechanical agents, we have the contractile or rhythmical currents, the wave and sinusoids of low voltage, and the condenser discharge or Morton wave of high voltage from the static machine. The chemical action arising from diathermy, and the thermal action following the direct current will be only incidental. Therefore, the predominating characteristic of each modality should lead us to consider its applicability in any given case. Quite often, 2 or more variant treatments may be advantageously combined. The stimulation of negative galvanism is often enforced by following with some contractile current; diathermy frequently needs synergistic aid from a Morton wave or the sinusoids; diathermy or radiant light and heat and positive galvanism are synergistically sedative; some form of ultraviolet, especially that derived from the carbon arc, is generally indicated as a metabolic activator following almost any local treatment.

Ultraviolet rays belong to the chemical category and have a wide range. Some are essentially bactericidal and others are essentially stimulant or metabolic. A radiant light and heat lamp will penetrate to about  $1\frac{1}{2}$  in. within the tissues. It will therefore not be indicated for thermal treatment of deep-seated pathology.

In considering the treatment indicated in a case of acute ovaritis, for illustration, one should bear in mind first of all that the imperative need of an acute inflammation is rest. Any stimulating or irritant treatment would therefore be unsuitable. The intense heat of diathermy is not indicated here, and radiant light would not penetrate deep enough. Let us consider the direct current (a better name for galvanic): the posi-

tive pole of the direct current constricts blood-vessels and is therefore sedative in character, relieving pain in acute inflammations. Use of the negative pole in this case would materially aggravate the condition. In chronic conditions where fibrosis causes constructive pressure on nerve endings the positive pole will merely accentuate the pain by increasing the pressure arising from its vasoconstructive action. The negative pole is indicated here because of its vasodilative, softening effects.

Even with a thorough knowledge of the physics and physiology of physical therapy and with excellent apparatus, it takes a well trained physician to determine the exact measures to be employed. And, finally, there are the practical items of technic—application of electrodes, time and manner of administering treatments and adjunct treatment. All this means constant study, intuition, ingenuity and adaptability.

### Physical Therapy in Chronic Lumbar Pain

Broadly speaking, says J. E. Rueth (Arch. Phys. Ther., 8:242, May, 1927), diathermy is contraindicated in any condition in which there is the slightest suspicion of the existence of an undrained area of pus. The danger of septicemia is very real in these cases if diathermy is used. Tuberculosis of the spine, psoas abscess, meningeal conditions, and tumors of the cord or spine, all absolutely contraindicate diathermy and static treatment.

According to Cabot, in a series of 2451 cases of lumbar pain, over 50% appeared under the classification of noninfectious sacro-iliac disease and lumbago. Under noninfectious sacro-iliac disease may be grouped the pains which are so frequently associated with chronic infection of the pelvis, apical infection of the teeth, and chronic infection of the tonsils and sinuses. The infection although not directly in the back, may be the cause of lumbar pain, and while diathermy and static will benefit the condition temporarily, complete cure does not result until the infection is removed. A purely traumatic back pain may become a chronic one simply because the traumatized area constitutes a point of lowered resistance to a focus of infection.

No attempt is here made to differentiate all the causes of lumbar pain. The point to be emphasized is that the end-result of inflammation, septic or traumatic, is an organized exudate, and the removal of this exudate is the aim of treatment.

Diathermy is the term applied to the conversion of electrical energy into heat within living tissues. The amount of this heat is directly proportional to the resistance or density of the tissues encountered by the current, and to the number and caliber of the blood-vessels. Blood is a good conductor of electricity, and some of this heat is thus carried away. It follows that the least vascular tissue in a given area will be the location of the greatest heat, and that bone, cartilage, nerve and tendon structures will become hotter during treatment than the surrounding and more vascular tissues. On these facts the whole treatment is built; inflammatory exudate is relatively nonvascular and dense, and a high frequency current will generate whatever amount of heat is desired within this tissue.

The physiologic effects of the heat thus developed may be summarized as (1) dilation of the blood and lymph channels, (2) speeding up of the circulation in the heated part, (3) sedation of pain and (4) increase of phagocytosis. If the heat is applied to an area of inflammatory exu-

date surrounding, for example, the sciatic nerve, the following results would be obtained: (1) vessels in the scar tissue would be dilated with increased blood supply; (2) phagocytic activities would be greatly stimulated; (3) scar tissue would be softened; (4) pain relieved; (5) dense area changed, in time, to the vascularity of normal tissue.

If static electricity is used after a 40 or 50 minute diathermy treatment, results will be much better than with diathermy alone. The length of the spark governs the force of the muscular contraction and should be adjusted to the comfort of the patient.

### Physical Therapy in Orthopedic Surgery

Believing that physical therapy in all its forms is one of the most valuable aids to the orthopedic surgeon, Archer O'Reilly (Arch. Phys. Ther., 8:252, May 1927) stresses the importance of its administration by those who know not only the theory but also the practice. Heat in the form of the radiant heat lamp, infra-red and diathermy is most beneficial in the treatment of acute and chronic joint affection. In the presence of pus, however, heat must not be allowed to take the place of surgical intervention; otherwise serious harm may be done. In stiff and painful joints, heat used before massage has proved most beneficial. The application of diathermy immediately before forcible manipulation under an anesthetic seems to have been of value. In infantile paralysis heat is useful in all stages. Massage, however, is distinctly contraindicated in the acute stage. In nonpurulent gonorrheal arthritis, radiant heat and diathermy are valuable aids to treatment, but it is essential to remove the primary focus if satisfactory results are to be obtained. In osteo-arthritis baking will lessen pain and increase function, but here also cure depends on removal of the focus of infection. Hydrotherapy, in the form of contrast baths, combined with baking and massage is beneficial in osteo-arthritis, sprains and joint injuries; also in the treatment of weak and painful feet.

In fractures, physical therapy should be begun early. Heat may be used almost immediately after the injury, and gentle massage may be started within a few days. The importance of mobilizing the fingers in Colles' fracture should be kept in mind. It is much easier to keep the joints free than to secure motion after they have become stiff. Hydrotherapy, heat and massage shorten the period of disability and improve the functional result.

The fact that physical therapy is being standardized is, in the opinion of Philip H. Kreuscher (Arch. Phys. Ther., 8:175, April, 1927) one important reason for its increasing recognition and use. Great strides have been made in the application of hydrotherapy. It was realized that if water was to be a safe remedy, it must be pure. Chemical sterilization was in many respects not feasible, and boiling was in many instances impossible. The general knowledge that artificial light will sterilize water led to extensive use of the ultraviolet ray and to the manufacture of an apparatus which is used today in many athletic clubs, schools and hospitals to render the water safe for swimming pools and hydrotherapy departments. The ultraviolet ray is also used in prevention and treatment of deformities, especially those of rickets. Steenbock has found that a variety of foods can be endowed with rickets-preventing properties by exposure to the ultraviolet ray. It is doubtful if there are at hand any clinical data which would warrant exposure of

rachitic deformities directly to the light as a routine measure in the treatment of rickets.

As a therapeutic measure in tuberculosis of joints and in the superficial ulceration of tuberculosis, as well as those of other septic processes, the ultraviolet ray, the mercury arc quartz lamps and the carbon arc lamps have a very definite place. In infantile paralysis and in the traumatic paralysis where electrical stimulation is indicated, the various faradic or sinusoidal currents are used extensively in connection with massage and corrective manipulation. Great caution must be exercised, however, in the selection of cases, as a nerve which has been recently paralyzed will react badly to stimulation. In the spastic cases, active and passive muscle training exercises, mechanotherapy and occupational therapy play an important rôle.

### Electrophysiotherapy in Industrial Wounds

To present such technic and methods as have actually proved successful in routine practice, and not to theorize as to what might or could be done, is the purpose of a paper presented by Frank H. Walke (Arch. Phys. Ther., 8:178, April, 1927). The modalities of the industrial surgeon are listed by him as ultraviolet, convective and convulsive heat; high frequency, sinusoidal and galvanic currents. With these available, no industrial wound should ever be neglected, for they are the bulwarks of an industrial practice—they are specific when the technic of application is correct.

Wounds which show much devitalizing tissue and bits of foreign matter should be cleaned as well as circumstances permit, and for this purpose there is nothing better than ordinary gasoline. After such cleaning a double erythema dose of ultraviolet from an air cooled lamp is administered, a 5% solution of mercurochrome is applied, and the wound dressed in the usual manner. It is a mistake to do much cutting away of tissue until the wound has had a chance to heal; any tissue that does not revitalize can be trimmed at subsequent dressings. If there is much swelling the heat lamp is applied for 20 minutes before the next dressing and when health granulations appear the lamp is continued; every third day ultraviolet from the air cooled lamp is given for 1 to 3 minutes. Should the scar adhere to adjacent tissue or become painful, application of a surface vacuum or a non-vacuum electrode from the Tesla current to the scar itself will be found most efficacious.

Shortening of tendons and muscle spasms are best overcome by diathermy; simple muscle injuries are best treated with radiant heat. In nerve injuries pain is often relieved by use of the galvanic current, which may also prove helpful as a diagnostic means in determining whether an injury is of nerve or muscle origin. In bone injuries which appear slow to heal, vigorous diathermy is used to stimulate callus formation, and to this a surging galvanic current is added to increase the blood supply. A resulting osteomyelitis or bone infection can best be overcome with diathermy, provided adequate drainage is present. If drainage is not sufficient it must be established. The method of procedure in stubborn cases is as follows: After securing good drainage, give diathermy, using 2 machines at the same time, lateral electrodes from one, and a cuff above and below the area, which is attached to the other machine. Give this treatment for 15 minutes; then administer 30 gr. sodium iodide and  $\frac{3}{4}$  gr. guaiacol intravenously; then continue treatment for 15 minutes. The sodium iodide and guaiacol



are given every third day but diathermy is administered daily.

It is important also in these cases to attend to the general health of the patients, a number of whom show calcium deficiency. This is supplied orally and fixed with body radiation by use of the ultraviolet from the air cooled lamp. Walke believes that this treatment is as specific for osteomyelitis as is quinin for malaria. The average time necessary to effect a cure has been 12 weeks; shortest time 7 weeks, longest time 22 weeks. Diathermy is followed by the sinusoidal current, manipulation and massage.

The specific treatment of several joints is worthy of mention. Wrist and ankle joints are best treated by placing a cuff electrode above the joint, and the hand or foot in a basin of water containing the other electrode. Elbow and knee joints are treated with the cuff method in the simpler cases but if they are stubborn the current from 2 machines is used, manipulation being instituted as soon as the soreness disappears. It is difficult to determine the extent of an injury to the shoulder but in the author's experience the deltoid and teres major muscles and the coracohumeral ligament are the structures most often involved. For these injuries radiant light and diathermy are used in the early stages, but if the muscle spasm is obstinate the arm must be manipulated under anesthesia, fixed in a Thomas splint, tied to the head of the bed and left in this position for several days. Vigorous manipulation, massage and the sinusoidal current are then applied. Exercises must be insisted upon—hanging on rungs of a ladder, throwing ball, and similar feats.

Treatment of moderately severe cases of sacroiliac strain consists in the use of radiant heat for 30 minutes to one hour, after which the joint is strapped with snugly fitting adhesive plaster. The infra-red ray has proved the most effective modality in these cases.

For ulcers, the author has found that ionization with a weak copper sulphate solution is almost specific. They should always be sterilized if possible, then treated with radiant heat and ultraviolet, and then dressed with paraffin to prevent the dressing from sticking and scabbing. When ulcers are free of pus, Walke uses copper ionization with the galvanic current.

For head injuries in which the x-ray does not show a fracture, he employs the usual routine of rest in bed with ice cap to head, large doses of bromides and magnesium sulphate, and spinal puncture if necessary. After a few days, if headache persists, diathermy through the brain is employed, one electrode being placed over the forehead and one at the back of the neck, with a current of 200 ma., never more than 300 ma. The first treatment lasts 15 minutes and subsequent treatments may be increased by 5 minutes daily up to 30 minutes, but the current strength remains the same. In 2 cases where diathermy had no effect on the headache, galvanism proved beneficial. The positive pole was used on the head and the negative pole on the abdomen, 5 ma. for 15 minutes.

Besides the actual wounds of industry, the mental attitude of the patients must be treated as well, and this is admirably done by physiotherapy. Patients must be made to understand that everything possible is being done for them but that time and patience are requisite. Such patients often show low vitality which must be built up. Some have calcium deficiencies, syphilis or anemia which require appropriate treatment. First and foremost, to obtain success with physiotherapy one must have adequate first class equipment. An intelligent knowledge of the physics of the modalities pressed into service is as necessary as time and patience. Overtreatment is to be avoided; physical therapy is as therapeutically accurate as any medical remedy. When confronted by an industrial wound, consider what is needed. If accompanied by pain, is the pain acute or dull, superficial or deep? If loss of function has been sustained, is it due to nerve or muscle injury? If the wound has become infected, is the infection virulent or ordinary?

For superficial pain use radiant light and infrared; for deep pain use diathermy. For loss of function due to muscle injury use surging galvanic current; if due to nerve injury use faradic and sinusoidal current. For infection use ultraviolet and radiant light. Remember that the chemical currents are galvanic and ultraviolet; the mechanical currents are diathermy, faradic, sinusoidal and vibration. With these points in mind one cannot go wrong.

To keep the apparatus clean and up to maximum working efficiency is most important. The electrodes should always be clean and bright; soaping them is a waste of time but the skin surface should always be wiped off with alcohol or acetone before they are applied. The outcome of many cases depends upon the intelligent use of available modalities and results are thereby obtained that could not be achieved by any other known method.

## Medical Book Review

(Royce Paddock, M.D., Department Director)

A MANUAL OF PHARMACOLOGY and Its Applications to Therapeutics and Toxicology, Torald Sollman. 3rd Edition. W. B. Saunders Co., 1926. Price \$7.50.

This manual of pharmacology is not confined to the ordinary limits of the science, but includes in its broad angle of vision such borderline agents as vaccines, war gases, and vitamins, not forgetting the humbler but essential "elements"—water and air. Several carefully condensed general discussions give evidence of the eagerness of the author to explain his subject fully. These cover such pharmacologic subjects as the general pharmacology of the autonomic system and allied subjects of physiologic importance, such as the mechanisms (as far as they are known) of temperature regulation, acid-base equilibrium, salt action, and the more vague conception of "allergy". These add greatly to the value of the book to those who wish to keep abreast of modern ideas along these lines.

The author's method is excellent in two respects. The pharmacologic agents are grouped in an orderly and well-related series, beginning with nutrients, such as cod liver oil, lecithin, cholesterol, and ferments such as insulin, through the usual series of agents with local action, especially the irritants. These are followed by the bitters and anthelmintics, then strychnin, caffeine group, and opiates, with the addition of cocaine and the local anesthetics. Next comes a large grouping of drugs which act peripherally on the autonomic system.

These are atropin, scopolamin, pilocarpin, physostigmin, cuscamin, cholin, nicotin, lobelia, epinephrin, ergotoxin, histamin, pituitary extracts, and the many substances, such as proteoses (peptons), cow's milk, tissue extracts, which

bring about reactions resembling histamin, when injected parenterally. Next comes the discussion of "allergy" and drug idiosyncrasy. Then follow the nitrates, camphor, saponins, aconite apomorphin and ipecac. Here is injected the discussion of temperature regulation, naturally introducing quinin, antipyrin group, acetanilid group and the salicylates. Benzol and its derivatives phenol and cresol, creosote, tar, naphthol, and picric acid form the first antiseptic group, followed by miscellaneous antiseptics and a short consideration of serums, vaccines, and allergic preparations. The theories of narcosis bring in alcohol, ether, chloroform, which is followed by the aliphatic hypnotics. Here enters a chapter almost physiologic on the systemic actions of the gases, carbon dioxide, carbon monoxide, and oxygen, with a special consideration of oxygen deficiency.

A single chapter on the cyanides leads to the latter or inorganic section of the book, starting with salt action, osmotic effect, and the cathartic salts. Water as such is not usually considered as a drug, but the author provides a very interesting chapter on its actions in the common or tap form as well as the more impressive mineral spring variety. Here follows sodium, potassium, ammonium, calcium, and then the bromides, iodides, with thyroxin. The book ends with a consideration of the important metals.

The other respect in which the book excels, is in the relegation to small type of the original matter from which the pharmacologic conclusions are drawn. The references to literature are very numerous, and of course the original matter, in work of this kind, often contradictory, since the drugs have been tried on different animals at different seasons and under different conditions. Here the author seems to strike the happy mean between didactic statement and controversialism. An effort to give credit to all the early workers in a given field is apparent, and indicates wide and continued library reading.

Perhaps the best quality apparent in the book is sound and tolerant opinion on the questions of therapeutic fallacies and moot points. There appears a well-balanced critical faculty, which is willing to give all the information available, but always with a grain of healthy unwillingness to believe the impossible. This quality is especially noticeable in the author's views on the subjects of alcohol, tobacco, and coffee, for these are the drugs which are the most widely used and on which it is natural that prejudice should prevail. His balance in these respects is thus the more appreciable. His statement on the question of glandular therapy—he does not call it endocrine—is to the point: "Brilliant success", he admits, "has been attained with thyroid in cretinism, insulin in diabetes; parathyroid therapy is also promising. With other glands there have been so far no definite results." Again, in his consideration of vaccines, he states that "the grading and spacing of the dosage of vaccines is a matter of judgment, which cannot be effectively checked by observation; even experience does not give security". Such conservatism, when accompanied by the willingness to investigate thoroughly, seems especially commendable in the author of a manual as replete as this with the condensed results of original investigations.

In the section on digitalis, the explanations of the conditions to which it should be applied, seem very clear. The author favors the intensive method of administration when the patient is in a hospital. He seems very sensible in giving a list of about 6 types of simple expectorants to

cover all the therapeutic applications of the expectorant action; favors chloral as against many of the more modern hypnotics; considers that tetany is an indication for the use of parathyroid hormone; is as unwilling to believe, on either laboratory or clinical grounds, that strychnin in therapeutic doses is a circulatory stimulant, as he is to consider lithium a solvent for gouty deposits; sees many benefits following the drinking of water, up to 4 glasses, at meals, including especially an increased absorption by the intestine; gives a rather full and apparently practical account of the accidents which may occur during anesthesia.

The book is not large, considering the contents, and is well bound. It contains a good-sized bibliography, and is apparently well indexed. Typographical errors are not infrequent, especially in the smaller type. For reference, this work would seem excellent, and easily read, thanks to brevity and arrangement.

MODERN CLINICAL SYPHILOLOGY—Diagnosis—Treatment—Case Studies. J. H. Stokes and Associates. W. B. Saunders Co., 1926.

(Reviewed by Dr. F. A. Roberts, Newark.)

Stokes' "Modern Clinical Syphilology" presents a wealth of information in a very thorough fashion. A plentiful number of excellent plates illustrates very satisfactorily many of the points discussed.

The chapter on physical examination for syphilis covers every aspect of that field in a most practical way, and ends with a wonderful resumé of all symptoms, even to minor details. For the busy practitioner, there is a descriptive survey of the preceding pages which can be perused in 5 minutes. Parenthetically speaking, it has been my experience that positive diagnosis of syphilis in many cases has been missed and these detailed points been overlooked.

Fundamental diagnostic tests include the dark-field examination. This the author stresses, (not unduly, for the very great importance of the "Dunkel-Kammer-Beleuchtung" as a diagnostic aid cannot be overestimated), bringing to attention of the reader a well made point—the time to make the dark-field examination. This paragraph alone is well worth remembering. Not to give your patients the benefit of a dark-field examination is, to my mind, sufficient grounds for malpractice suit. Patients today know of these laboratory refinements, and many of the more intelligent demand them. Some physicians waive the plea aside with the explanation, "It is too early." It is never too early in a suspected sore to make a dark-field. The somewhat ancient saying, "Regard all sores as suspicious of syphilis until proven otherwise" is an excellent one to be governed by. Dr. Stokes accompanies a fine description of the true *Treponema pallidum* and a discussion of the fine points of differentiation between the true and false with some wonderful plates.

The Wassermann reaction, so little understood by many physicians, is explained in so able a manner that the reader can hardly fail to grasp its significance. As much can be said for the Kolmer modification of the Wassermann. It is to be understood that while the positive Wassermann has a very high diagnostic value, a single strongly positive blood Wassermann is not to be regarded as conclusive unless supported by other convincing evidence of the disease. Realization of the gravity of a false diagnosis makes repetition necessary. The patient should be kept under strict



observation, given the provocative test, and finally the spinal fluid examination.

Throughout his chapters on treatment, the author scores the old time methods of mercury and iodides by mouth, with the long wait for disappearance of visual symptoms, as compared with the quick results of the intravenous method of administering arsphenamin and iodides. Bismuth salts and mercury intramuscularly, are slowly absorbed, but this does not detract from their therapeutic value.

The different stages, from the chancre on to the involvement of all tracts of the human economy—skin, visceral, bone and neural syphilis—are systematically treated. Lesions simulating syphilis, those mistaken for cancer, and vice-versa are pointed out as sources of great confusion. Treatment of pregnant women with syphilis is an extremely important chapter. The final discussion deals with familial and prenatal syphilis, and miscellaneous aspects of the dreaded disease.

The book is up to date, and is rich reading for those dealing with this disease. To the general practitioner, it is a boon. The book should be in every physician's library.

## Current Events

### TRISTATE MEDICAL CONFERENCE

Scranton, Penna., June 18, 1927

Meeting of the Tristate Medical Conference was called to order at 10 a. m., June 18, 1927, at the Hotel Casey, Scranton, Penna., by the President of the Medical Society of Pennsylvania, Dr. H. W. Albertson. Those present were: from Pennsylvania—Drs. H. W. Albertson, Frank C. Hammond, Arthur C. Morgan, Walter F. Donaldson; from New York—Drs. James E. Sadlier, H. R. Trick, Frank Overton, Joseph S. Lawrence; from New Jersey—Drs. J. B. Morrison, Walt P. Conaway, Henry O. Reik.

*Dr. H. W. Albertson:* It gives me great pleasure indeed to welcome the Tristate Conference to Scranton. Unfortunately, I was detained at home and unable to attend the New York meeting and I appreciate very much Dr. Morgan's presenting the invitation to meet in Scranton. These conferences have been a great deal of value, to the Pennsylvania State Medical Society at least, and I personally feel particularly indebted to the conferences for the many ideas that have come to me in this work. I think an interchange of ideas of the neighboring states is one of the best things that we can have. Our work is so closely allied and there is so much that we can get from one another and use to our own advantage that I feel they are very much worth while.

Dr. H. R. Trick, of Buffalo, N. Y., the President-Elect of the New York State Medical Society, was introduced by the President, as a new member of the conference group.

The first topic for consideration being the "Education of the Public in Medical Matters", Dr. Frank C. Hammond, of Philadelphia, presented the following paper.

*Dr. Hammond:* Without doubt one of the greatest endeavors of a state medical society is education of the lay public on medical matters. The crusades against tuberculosis, diphtheria, infant mortality, heart disease, cancer and venereal diseases have been of far reaching significance. Public education has 2 branches: first, education of the medical profession, and second, elementary education

of the lay public. To the medical profession, assisted by the educated lay public, there should be entrusted the duty of instructing the mass of people. Needless to say "it is of great present-day importance to address ourselves directly, to the public, to the medical profession, to the classes that mold public opinion, to the personnel of the teaching force of all grades, to college students, to the ministers of the churches, to all, in short who are in a position to bring to bear an effective social influence upon the public, in medical matters".

In the judgment of some observers "this education can best be accomplished by a thoroughly organized plan under the auspices of the state medical society. This matter of lay education is not simple as it might seem. You will probably recall that some 20 years ago, when the problem of education was being discussed in the Academy of Medicine in New York, Sir William Osler said that in his opinion the secret of education was "reiteration, reiteration, reiteration", to which one of his colleagues added "without irritation". It is an art to be able to repeat over and over again the same thing to the public in just a little different language.

You may recall Sir Arbuthnot Lane having resigned from the British Medical Association, for being chastised for articles that appeared in the lay press over his signature, in an endeavor to educate the public on medical matters. In his letter of resignation he complained that while his confrères in America could go into the press and write freely about their experiences in treating disease in order to enlighten the public, this could not be done in England. He thought it should be done in England too. Have we the right, as individual physicians, to attempt to educate the public through the medium of the newspapers? It would seem it is against our medical ethics to do so. It is a remarkable fact, and one not at all to the credit of the human intellect, that the medical profession has kept knowledge largely concealed, which was essential to the lives of their patients. As Samuel Hopkins Adams said in 1912, the medical profession tried to educate the public secretly. Medical ethics, a strong weapon of conservation, has been the greatest block to publicity.

The public consumes an enormous quantity of misinformation and near facts regarding health culture and popular hygiene. It is a general complaint among educated classes that sound information and advice are difficult to secure. Hence it is up to the state medical society in a thoroughly organized manner, to clearly and scientifically instruct the medical profession and the public, and no adverse comments can be made.

Dr. Wendell C. Phillips, President of the American Medical Association, at the annual session of the Association, May 16-20, 1927, urged continuous attention to the education of the public in matters of health. He suggested a proper system of censorship to safeguard medical publicity:

"In addressing the House of Delegates one year ago, I urged you who are clothed with the responsibility of outlining medical policies to give serious consideration to the subject of public health education. Even at that time there seemed to be a slight awakening of the medical conscience as to the trusteeship of physicians as promoters of individual and community health education. It was urged that physicians only are qualified by heritage, education and experience to teach the public the basic principles of health preservation. Attention was called to the growing demands emanat-

ing from the great newspapers, newspaper syndicates, magazines and numerous lay organizations for medical men to enter the field of public health education.

During the year it has been my pleasure and privilege to address many medical and lay organizations throughout the country, and in these addresses I have never failed to give emphasis to the importance of bestowing the leadership of all health movements on the shoulders of scientifically trained medical men. I have urged and pleaded for the dignity and leadership of the qualified family practitioner of medicine. I have urged that all periodic health examinations of every individual should be recorded and filed in the offices of the general practitioners of medicine in every locality. I have also urged that heads of industrial organizations who feel the necessity of such examinations should arrange to have these examinations conducted by the personal physician of the employee.

The medical profession should throw off its mask of reticence and its shrinking attitude toward reasonable publicity concerning health education. Professional policies narrowly conceived can never successfully oppose the rightful interests of the public. It is time to strike the shackles not only from the shrinking attitude of the medical profession toward the public espousal of educational programs but also from its attitude toward the lay press, the radio and great assemblies of truth-seeking people. The physician has no right to conceal from nonmedical readers the great body of news of the highest importance which is his to communicate.

In view of the leadership which should be maintained by the medical profession in matters of personal and community health education, and in view of an apparent need of information on the part of a considerable proportion of the physicians of our country, I recommend that the House of Delegates take into serious consideration the question of field health education work, to be promoted and financed by the Association. It is to be hoped that such a movement will eventuate in a department of field activities through which every county society unit of the Association may be organized and become efficient leaders in all local health activities.

Health education programs, properly conceived, may of necessity demand legitimate changes in our more or less orthodox views of our attitude toward publicity. The sentiment expressed in my address to the health conference regarding this matter has resulted in wide editorial comment and approval on the part of the leading newspapers of the country.

It may become necessary and advisable to modify some narrow code restrictions of constituent county and state societies in order to meet the rightful educational needs of the public. It is our plain duty to formulate the modes and methods of medical publicity to conform with legitimate health educational programs. One of these demands is that the listener or reader shall know the source of his information. Our radio authorities insist that the name of the broadcaster be known. This is true in business, in politics, in religion and in science, and it should be no less so in health education of the public. A proper system of censorship should be inaugurated to safeguard our publicity problems. Such censorship should emanate from organized medicine. In more general matters where great publicity is needed, it would seem wise that the censorship should be that of the headquarters of the American Medical Association. In state matters the censorship should be charged

to the responsibility of state medical societies, while in counties and local communities the county societies should assume the responsibility. In no sense should such censorship be permitted to interfere with the legitimate publicity requirements which the subject demands. Nevertheless, individual physicians should be cautioned against personal aggrandizement, or seeking to advance their own personal interests."

On recommendation of the Judicial Council, the opinion was adopted that all articles of an educational nature on medical or health subjects intended for the lay press or lay audiences should give expression to the consensus of opinion of the medical profession rather than personal views, and that such articles should appear preferably under the auspices of the American Medical Association or of one of its component county societies, or constituent state associations.

The President of the Association appointed a committee to act on public responsibility, having to do with the relationship of the medical profession to the public.

The House of Delegates of the A. M. A. also adopted a resolution whereby the Board of Trustees will prepare approved forms of letters or literature to be sent out by county medical societies to the public to promote the value of periodic health examinations, and information that the examinations can be made and records kept by qualified physicians who are members of the American Medical Association, in this manner hoping to circumvent the harmful advertising activities of commercial agencies dealing with periodic health examinations.

It is difficult to deal with the advocates of quack remedies. They publish their own journals, in a form similar to medical journals. They insist they are not maintaining secrecy and yet the whole truth about their methods is not published. This feature must be borne in mind in instructing the public.

#### POSSIBLE ACTIVITIES IN LAY EDUCATION

##### I. Organization.

Work directed by Committee on Lay Education, or Committee on Public Relations, with cooperation of central office of the state medical society.

- (1) Producing organization. (a) Every county society requested to appoint a committee on lay education or public relations, to help secure speakers and distribution. (b) Direct solicitation by officers, committee, and office of possible contributors—financial, speakers, or writers.
- (2) Distribution organization. (a) Committees of county societies. (b) Connection with one or more newspaper syndicates. (c) Connection with lecture bureaus and Chautauqua committees. (d) Direct contact with lay and other professional organizations. (e) Direct contact with school authorities. (f) Cooperation with state educational and health departments.

##### II. Media of publicity.

- (1) Newspapers (distributed direct and through syndicates and county societies).
- (2) Magazines (distributed through agencies or direct).
- (3) Labor organizations.
- (4) Fraternal organizations.
- (5) Ministerial organizations.
- (6) Men's Clubs and service organizations.
- (7) Women's Clubs.



- (8) Churches.
- (9) Radio.
- (10) Movies.
- (11) Stores.
- (12) Libraries.
- (13) Schools and colleges.
- (14) Trolley cards.
- (15) Industrial corporations.
- (16) Coöperation with insurance companies.
- (17) Inauguration of "Health Week" by county medical societies.
- (18) Health examination clinics in connection with "Health Week".
- (19) County fairs and other exhibits.
- (20) State farm show.
- (21) Coöperation with Antituberculosis Association, Welfare Federations, Cancer and Heart Associations, and any health organization.
- (22) Coöperation with state, county, and city health departments.
- (23) Coöperation with nurses, druggists, and dentists' associations.
- (24) Inauguration by county societies of permanent health examination clinics.
- (25) Coöperation with hospitals and hospital associations.

### III. Methods of propaganda.

- (1) Articles for newspapers and magazines.
- (2) Circulars distributed through labor and other organizations.
- (3) Posters displayed in stores, factories, and libraries.
- (4) Circulars supplied druggists and stores to wrap with packages, and to libraries to place in books as markers.
- (5) Manuscript of radio talks supplied to radio companies as "fillers", in addition to arranging for radio talks by physicians.
- (6) Securing health films and arranging to have them run by local picture houses.
- (7) Providing attractive trolley cards, and either securing donations of space or paying for it as necessary.
- (8) Health talks to employees of industrial concerns and stores.
- (9) Providing speakers to lay organizations.
- (10) Preparation of outlines of talks to be supplied speakers, or of manuscript to be supplied to club members who will volunteer to read them.
- (11) Survey of health courses in schools.
- (12) Preparation of ideal health courses.
- (13) Effort to secure introduction of such courses in schools throughout the state. Coöperation with state educational departments.
- (14) Same in colleges of state.

### IV. Subjects for propaganda.

- (1) Diphtheria immunization.
- (2) Small-pox vaccination.
- (3) Typhoid inoculation.
- (4) Periodic health examinations.
- (5) Health habits.
- (6) Avoidance of epidemics.
- (7) Stream and water supply pollution.
- (8) Cleanliness and civic health.
- (9) Child health.
- (10) Sunshine and health.
- (11) Diet.
- (12) Et cetera ad infinitum.

### V. Benefits to people.

- (1) Better health.
- (2) Replacing of popular superstitions regarding health by better comprehension of scientific facts.
- (3) Better understanding of the aims of the medical profession.

### VI. Benefits to profession.

- (1) Constructive combating of cults.
- (2) Greater prestige of profession.
- (3) More sympathetic reception of medical legislation; less need of combating destructive legislation.
- (4) Increase of health examination work, and building up of practice in preventive medicine.

The Illinois State Medical Society undoubtedly has the most thoroughly organized system of lay education. In order to finance this field and other work they increased their pro rata from the county societies from \$5 to \$8. In 1926 it cost the society \$2.86 per member, to carry on this work. They have:

- (a) 1400 speakers throughout the state prepared to speak on health subjects, state medicine, etc., to appear wherever they may be assigned.
- (b) Newspaper service. Health news articles appear regularly in 82 papers in the state. Their county societies are put to work on the papers in their respective counties. Chief advantage of the county societies is in emergencies in local districts. No personal attacks permitted on the cults.
- (c) Radio health talks—5 to 8 minutes.
- (d) Periodic health examinations.
- (e) Coördination with lay societies under supervision of county societies. About 80% of their county societies are coördinating with the work. Fraternal welfare.
- (f) Scientific. Live wire men in the state are sent out to the county societies for scientific programs. They send out 3 men, combining a clinical and didactic program.

The basic aim of their Lay Education Committee is:

- (1) To make clear the meaning and teach the necessity of the single standard of medicine.
- (2) To teach preventive medicine, toward which they believe the periodic health examination (medical and dental) is the single greatest step.
- (3) To achieve a high degree of efficient team work in health programs, with all agencies that are interested in any phase of health work.
- (4) To establish in communities, scientific activities under medical leadership, of all lay movements for health.
- (5) To hold back in every possible way "State Medicine" in every form, and prevent all legislation toward that end. This being done through the component county societies assuming the responsibilities.

The following, they claim, are the benefits that accrue through membership in their state medical society, quoted from a report before the Members of the Council and the House of Delegates, showing the 1926 year's work of their Committee on Lay Education:

- (1) Fellowship privilege of attending meetings.
- (2) The state medical journal.
- (3) Medicolegal protection.
- (4) Legislation protection.
- (5) Lay Education Committee service, (a) Speakers' Bureau, (b) Newspaper service, (c) Radio Health Talks, (d) promotion of periodic health examinations, (e) coördination with lay organization, (f) coöperation with other societies in health work, (state department, Tuberculosis Association, Dental Associations, American Association for Prevention of Cancer).
- (6) Scientific Service Committee—Value to county societies.
- (7) Preschool child examinations."

"The end results are in direct proportion to what is paid by members. They started this work by popular subscriptions, about 22% of their membership contributed \$13,000. Then they increased their assessment from \$5 to \$8 to carry on." They have a woman who is a full-time director in charge of the office of the Lay Education Committee.

"In 1926, in Illinois, talks were made in 79 of the 102 counties in the state. The most effective use of the press was the 'Health Columns' appearing in 57 state publications, each over the signature, and with the censorship of the local county medical society. Supplementing the lending service of the State Department of Public Health, 131 moving picture films on health have been shown before lay audiences; 92 radio talks were given through broadcasting courtesies extended by several stations; 145 exhibits and demonstrations in health education were organized and arranged at an average cost of \$24.60. The preschool child campaign is being handled in coöperation with the Illinois Federation of Women's Clubs, the Illinois State Dental Society, and the State Department of Public Health. Community Health Pageants were held, but are not recommended to be widely used, as its successful conduct means the neglect of other equally vital state work. It is of interest to note one pageant cost \$5000, and receipts totaled \$9 over and above that sum. Unorganized women were reached through the medium of department stores in Chicago. Scientific speakers were supplied to 17 county medical societies. Service of some type was extended to 73 organizations."

"From the record of successes and failures in Illinois during the past 2 years, certain recommendations can legitimately be made for the greater appropriateness of further educational work to the needs of the people. (1) We must focus more intensively upon the child. Too much of the speaker's work in particular has been directed to adult audiences, less susceptible to a modification of customs and prejudices. (2) We must relate more closely the programs of lay education to the regulation business of the society. Their cost to the society is about \$2 per capita of the \$3 raise in annual dues authorized at the 1925 meeting. No matter what their influences upon the lay mind in general, they must be made an integral part of all county society work if they are ever to be justified in the mind of the individual physician. (3) We must make a direct effort to cut mortality rates. Nothing to the lay person will more quickly differentiate this movement from selfish propaganda and will more readily gain good will and coöperation for it. Those of you who have watched the development of lay education work know that this was the purpose of its sponsors from the beginning. We must make this purpose more obvious. (4) We must equalize the amount of serv-

ice now being rendered in the state in order that each county may receive its just proportion—whether the county society takes the trouble to ask for it or not."

"It has been stated earlier in the course of this meeting that the unorganized medical man is a menace. May I add that I have seen abundant evidence that the weak county medical society is a deficit to any community, and a strong medical organization its greatest contribution to economic soundness and good American citizenship. This committee must be made to build and serve and make friends for your organization as a whole. It must pave the way for your leadership."

Many of the states have been showing certain activities in lay education. The El Paso County Medical Society, Texas, in March, 1926, sent to the editors of the various state medical journals proof of certain informative articles which were appearing in the newspapers of El Paso. It was the opinion of their publicity committee that such a campaign could best be handled with the assistance of a competent advertising man.

We have not launched a plan of lay education in Pennsylvania, but we believe it is a most essential activity for our state society. We have given much thought to organization, and it will require much diligence and application on the part of those concerned to carry it to successful fruition. It will require financial support. We hope by the end of the year to have established ways and means for its consummation.

*Chairman:* Discussion of Dr. Hammond's paper on Education of the Public in Medical Matters, will be opened by Dr. Sadlier, President of the New York State Medical Society.

*Dr. James E. Sadlier, Poughkeepsie, N. Y.:* Not until this morning was I aware of the fact that I should have to take the place of Dr. Van Etten in this discussion. I cannot presume to handle it as Dr. Van Etten would, but to one who has been for a considerable number of years devoting his time to the clinical side of medicine rather than to public health, I have been impressed very intensely by the vast amount of sickness and disease coming to us that has "gotten by" existing provision for prevention. Therefore, it is with a great deal of interest that I feel, as you gentlemen do, that medical education both to the physician and to the public, along the lines of public health instruction, is one of the paramount and most important things of the times.

In New York State, we have at the present time in process of development a plan whereby organizations can be so combined in their action and so coöperative that we can instill into the membership of the county societies and the medical fraternity of the state proper ideas along the line of education in public health matters, and at the same time extend those ideas to the public so that proper publicity shall be given to public health matters. Along those lines we have developed what is known as our "Public Relations Committee". Up until the present year that committee consisted simply of a get-together of the state medical society committee and a committee from our largest lay organization, namely, the State Charities Aid Association, an organization that is far-reaching and which has its subcommittees in most if not all of the counties of the state; that has quite a large sum of money—I understand a million dollars or more a year to expend in public health activities. That was as far as we got in last year's program. Of course, it was definitely understood that all activities which this committee on public relations should assume were to be in



coöperation with our state department of health.

Now we are formulating a new plan in that committee, and I should like to call your attention to the fact that the distinguished gentleman who last year was the President of the Medical Society of New York, Dr. Fisher, has very kindly consented to become Chairman of the Public Relations Committee, and you all know about his enthusiasm and interest in these matters and we can all feel assured that the work will go on progressively and thoroughly under his leadership. Only yesterday afternoon, there was a joint meeting of the Public Relations Committee with the State Charities Aid Committee, and plans were formulated to carry this general educational question into each county society of the state, as already authorized by the House of Delegates of the New York State Medical Society. Our program is to go out now to the county societies and organize a separate local Public Relations Committee which shall be under the jurisdiction of the parent committee, under the leadership in each county of the county medical society; and to bring the lay organizations in each particular county, together with the state health organizations, of course, into association with them. They will form a composite committee which will work for the common good and bring the medical men who are apathetic upon this question up to the proper standard; to get them actively working and also to coördinate the activities and eliminate the dysfunction which is an economic waste and which has existed in all times past. We are hoping for a great deal from this committee with its auxiliaries in the county societies, but we recognize that it is going to be a rather slow process. It will not be consummated in 1, 2, or 3 years. It will take a long time to get it actively working, but that it is progress in the right direction we feel quite assured.

With reference to that particular field of public health known as periodic health examinations, in a little conference with some of the leaders of the New York Medical Society, held about a month ago at the Biltmore Hotel, I was surprised to note how absolutely the question of periodic health examinations has fallen down in our state. We are talking and writing about it and having practical lecture courses, especially in the larger cities of the state, and doing all that we seem to be able to do to get it across, and yet we are actually accomplishing very little outside of 1 or 2 institutions. The medical man, the family physician, is actually doing almost nothing. Trying to ascertain the reason for this, discussion brought out the fact that what little work was being done was by a group of men that does not include many of the younger men in the state society. This question of periodic health examinations would impress one that it is really an office of the younger physician. The young man should take up this work, make a study of it, and carry it into practice. The consensus of opinion that evening was that we were not doing enough to instruct our coming medical men with the idea of their duty in public health matters, in regard to periodic health examinations particularly.

I have in mind one thing for the coming year, among my official duties: to get together the men of the various colleges in the state of New York, and in association with some of our leaders, have a very definite talk along this line of public health and periodic health examinations to see if we cannot instill into the minds of these young men, prospective physicians, before they go out into the actual field work of medicine, the idea that medicine is more than a definite treating of es-

tablished disease; that preventive medicine should go along with curative medicine, and thereby get a group of young men coming up who will carry on this work.

If I understand correctly, the Pennsylvania State Medical Society has a Ladies' Auxiliary which has recently come into existence. As to how much value it is I am not able to say. I hope we may hear something with reference to it this morning. But that is another thing which the House of Delegates of the New York State Society authorized us to organize and bring into action. We are going to take that matter up this year and hope to develop much from it. Personally, I feel that through such an organization we can reach out into the homes in a better way than by any other method we have at hand.

I had the pleasure about 3 weeks ago to attend a meeting of the Illinois State Society at Moline. I read a short paper there in the Public Health and Hygiene Section and came home with a lot of their enthusiasm. Nothing pleased me more than to hear this splendid talk this morning by Dr. Hammond relative to what is going on in the state of Illinois. I talked with one of their speakers who had been out over the state of Illinois educating the medical men and the lay public on the question of nose and throat hygiene, and it seems to me that we have got something to learn from the state of Illinois. I do not wish to place any other state in advance of the 3 that are represented here today, but I do think that we can learn a great deal along the lines of education of the public in the matter of health from what they are doing in Illinois. They have certainly got a state-wide program and, better still, have an enthusiasm that is simply marvelous. If we can only get some of the psychology and some of their enthusiasm we can put over a very nice program in our 3 states.

*Dr. Walt P. Conaway, Atlantic City, N. J.:* Mr. Chairman: I am not at all certain of being able to add anything of material value to this very interesting and instructive program, but I would like to comment on and to emphasize the importance of a few points in Dr. Hammond's paper.

I think this matter of furnishing medical education direct to the public is one of the newer activities of county and state medical societies, which at this time, is deserving of careful consideration. Several methods have been proposed. I quite agree with Dr. Hammond that radio talks direct to the public, under the supervision of the county medical societies constitute a most efficient method. We must have coöperation with lay societies and different health organizations also. In some states considerable money is being spent for this purpose. The medical societies of the states of Illinois, Wisconsin and Texas are, I believe, the leaders at present in this work. The medical society of my own state of New Jersey, while in hearty sympathy with this movement, has as yet spent comparatively little money in this work.

In my home county of Atlantic, we appointed a committee to supervise regular weekly radio talks on health matters. These talks were willingly given by members in good standing in our county society and I know they were very much appreciated.

Since October, 1925, Dr. Reik, who is the Editor of our State Journal as well as Executive Secretary of our state society, has devoted a goodly portion of his time to educating the public concerning medical matters. In addition to arranging for a series of ten-minute talks on "Keeping Well" which were broadcast weekly, he has spent con-

siderable time throughout the state addressing Rotary, Kiwanis and other business men's clubs as well as giving talks before Y. M. C. A. meetings and church clubs. A small booklet called a "Primer on the Relationship of the Physician to the Public" was also prepared by Dr. Reik, and 5000 copies have been distributed. I think we are safe in estimating that about \$3000 was spent last year by our state society in public educational work. At our annual meeting last week, the House of Delegates very generously gave permission for the appointment of an assistant to our Executive Secretary, whose time shall be devoted exclusively to the public educational program at a cost not to exceed \$4000 annually; so while we have been expending approximately \$3000 per annum for the past 2 years, it is a fair estimate to say that for next year our expenses for this work will be over \$6000. It seems to me most commendable in the physicians of our state to be willing to spend that much money from their own pockets to be applied to a program of instructing the public how to keep well.

At the last meeting of the A. M. A. in Washington, the House of Delegates, according to an editorial in the Journal of last week, considered carefully this question of education of the public in matters of medicine and health. While it was recognized that such education is most desirable for the benefit of the public, yet the sentiment was expressed that the publication of some articles on health subjects might reflect only individual views rather than well-established scientific facts or the views of physicians as a group. It was stressed that some sort of control seems to be needed at the present time while this matter is in process of development. The conclusion reached by the House of Delegates was to the effect that all articles of an educational nature on these subjects should give expression to a consensus of opinion of the medical profession and that all articles should appear under the auspices of the A. M. A. or one of its component societies.

We, too, in New Jersey are expecting help from the woman's auxiliary in this matter of educating the public. When Dr. Wendell C. Phillips assumed the Presidency of the A. M. A. at Dallas last year, he said among many other interesting things, that he thought it would be advisable if doctors in general would take more time to teach the public the prevention of disease. Dr. Phillips has also devoted considerable time to the study and value of periodic health examinations, and is very enthusiastic about putting this matter before the public. This very important subject has been brought to the attention of each county society in our state through the willingness and generosity of our Executive Secretary, Dr. Reik. He has attended at least one meeting of each of our county societies during the past year, and in addition to giving an interesting talk on this subject, he has displayed a moving picture showing the proper technic of the procedure.

It seems to me it is the duty of medical men to assume leadership in all lay movements for the benefit of the public health. Some of the objects of the lay educational committees are in a sense to teach the public some preventive medicine and the necessity and importance of only a single standard of medicine, as well as to assist at achieving a higher degree of efficient team work in certain health programs. In this way they do a great deal toward preventing legislative measures tending toward "State Medicine" in any form.

Whether we have a paid publicity agent, a full-time director, an assistant secretary, or whether

we send out speakers regularly from our different county societies, the object to be attained is the same; and I can say for the Medical Society of New Jersey that we are most heartily in accord with all activities looking toward a better understanding between physicians and the public, especially on all matters pertaining to preventive medicine and to the betterment of the public health.

*Dr. Frank Overton:* This matter of education of the public is a thoroughly new thing in the county medical societies. Dr. Sadlier has called attention to the whole system of education in medical schools. They do not talk to the medical students at all about civic duties except in the briefest possible way during the course. It seems to me that the medical schools should have this brought to their attention. Dr. Sadlier suggested that the medical schools give talks on these problems, showing the students what their future relations should be.

My son is just graduating in medicine from Yale and that is how I know these things. Apparently the only place where such talks are given is in the Long Island College Hospital where various speakers go before these students and urge them to join a county society. On a visit to Yale I talked to a medical fraternity of about 30 or 40 members. I said, "This is your fraternity, your medical college where you are getting your medical education and medical inspiration. Your county society will continue the work which the medical school is starting; the county society will be your future medical school." If we can bring that fact to the attention of the medical schools I think it will be a tremendous aid in our future work because certainly at the present time the younger medical students have no conception of what the county societies do, and it is up to us to tell them.

*Dr. H. O. Reik:* I want to speak on several of the points that were brought out: First, to commend to the New York State Society that they proceed with the organization of the woman's auxiliary. We have just organized one. They had their first annual meeting this year and there is every prospect of taking a very active part in the public educational program. We were a year behind Pennsylvania in this work but are also a year ahead of New York and that is a fair relative pace to keep.

Regarding the health examination work, last year I was very much discouraged with the situation in New Jersey but found a means of resuscitating interest in the way that Dr. Conaway referred to, that of exhibiting moving pictures. I had talked to county societies during 2 years with the feeling that my message was having no effect. Last year I showed a film, "The Technic of the Periodic Health Examination", which was purchased for this purpose by the New Jersey State Society. It was exhibited in 17 of the 21 counties and there was keener interest than there had ever been in the previous talks. At every meeting there were orders placed for the examination blanks, which showed the great value of a picture over words in presenting these matters.

There are 2 or 3 other states taking part in this public educational work besides those mentioned by previous speakers. Massachusetts has just engaged a secretary and California is doing a great deal of work. California publishes a monthly periodical for the laity which is comparable to Hygeia.

I always like to get some concrete question before this body for action. One thing came up in Dr. Hammond's paper regarding the presentation of radio talks and the censorship of such things. One station in Atlantic City, WHAR, has been placed



at the disposal of the New Jersey State Society. Station WPG has been placed very fully at the command of the Atlantic County Society and there are weekly messages broadcast from that station. The county society selects its speakers through a committee and the papers are presented to the committee for censorship before they are broadcast. They have used the name of the speaker, the local station rather insisting upon that. At Paterson, in Passaic County, New Jersey, they are putting on a series of talks under the auspices of the county society and they avoid the name of the speaker, the talk coming out under the name of the county society. Now, the thing that affects us is this: that in these talks, the broadcasting that reaches the public of these 3 states is mainly in the hands of the Radio Corporation of America. They control all the big stations and announcement was made some months ago in the press that they intended to appoint a Board representing various professional interests to supervise what should go out over the air from their stations. I immediately asked Dr. Wendell Phillips to see that some physician was appointed to censor the medical material because a good deal is going out from the cults. I don't know that anything has happened yet, but Major General Harboard was responsible, I think, for the issuing of that statement. Would it be appropriate for this group, representing the medical societies of the 3 states, to communicate with him, asking that a member of the Supervising Censorship Committee be a medical man who shall act on medical matters to be broadcast?

*Dr. J. B. Morrison:* I think this is probably the most important matter that will come before us and I want to congratulate Dr. Hammond upon this magnificent paper. I believe if this conference did nothing else today but deal with Dr. Hammond's paper we would accomplish much in support of the impulse that has brought us together. There is no subject before the public today so far reaching as the subject of public health education. I want to stress, and have you bear the opinion back to our societies, that probably the greatest feature we have to deal with is education of our own men before they engage in the activities of this field. As we travel around in New Jersey, we are discouraged by the attitude of the average physician toward anything of this type. It may be that this is a matter of education; that it is a matter of the physician's limited contact, that does not take him out into the breadth of the world. It may be that the man who is a member of the Kiwanis Club gets a better education along this line than does the physician. At any rate, the physician often does not have the breadth of vision that is necessary to carry him on with the work, therefore, we must employ our greatest efforts to get our opinions before those men and encourage them to develop such enthusiasm as is found at present in the state of Illinois.

The question is: how to do this? I don't think it can be done sporadically. Two and a half years ago we were at sea about this in New Jersey. Illinois was starting; California had done some little work along this line. We in New Jersey had an insight into this and saw what the opportunities were and we engaged a man to enter the field at what was then a considerable cost to us. I happened to be a member of the committee that chose Dr. Reik and told him that we could not lay out any definite plan but that we felt there was ample work for him to do and that the possibility of accomplishment was great. The return coming to us from this expenditure has been enormous. I hear Dr. Reik's name mentioned everywhere, not because

he is Dr. Reik, but because he is the Executive Secretary of the society. This comes to us from the laity. He has traveled during the year over 20,000 miles within the state of New Jersey, and addressed between 80 and 100 meetings; a great deal of time has been spent with the county societies and a great deal of it in contact with the public, and it is bringing enormous returns.

I am not discouraged about our work with the periodic health examinations. It is difficult to say just what has been accomplished but, in my own office, when 8 to 12 people come in during the year desiring periodic health examination, we know that something has stimulated them to ask for the examination. They do not go to the younger men, probably for the reason that they select the man who has had greater experience. The work is broadening and I think the results are splendid.

What the state medical society has done in this matter also deserves a great deal of thought. The contact that we are forming in New Jersey is broadening all the time. This year we are going out with this diphtheria work, which is on the program for later discussion, and it is showing us the necessity of a state-wide organization with the proper qualifications, not distinctly with a view of giving proper education to the public, but regarding the method of approach in order that we may broaden the contact of the medical profession with the public.

*Dr. Arthur C. Morgan:* A short time ago it was my privilege to address a county medical society in Pennsylvania which met in a town where there was a college that gave a good premedical course. I was delighted beyond expression to note 16 premedical students in that society meeting, who were present by invitation. These young men were being educated, in addition to their academic education, in the way to conduct a county medical society.

Another point: In response to the recommendations made by the American Medical Association relative to conducting periodic health examinations on all students in their colleges, the institution with which I am connected has that plan in force so that each medical student now will have received 4 periodic health examinations during his term of college study. This will be an actual practical presentation, with this man as the subject, and he will be enabled to do these periodic health examinations himself in practice.

A very important thing has been the finding among the student body of cardiac affections, of tuberculosis, of focal infection of various sorts, which have been taken care of, so that these student-patients now have been individually aided, and there has been a moral effect upon the student body as this information seeps out among the members of the classes.

In the Philadelphia County Medical Society we adopted a by-law that provides for junior membership. The nominal fee of \$5 per year is charged and this covers men and women who are doing internship work in the hospitals after their graduation and before they have come up for the state board examination and cannot therefore be made members in the regular manner of any medical society. But, by being made junior members, they receive that broad consciousness of the fact that they are already members of a county medical society. At the commencement exercises 2 nights ago, several young men said they wanted those health examination blanks right away.

The woman's auxiliary in Pennsylvania has been a very material help to the state society in carrying on its work. I shall speak later in regard to the aid they gave us in legal matters, but I can tell you

that the organization is eager to do work and on every occasion when I have addressed them they have asked the question: "How can we serve you?" The answer has always been, "Follow us but do not go ahead of us". That is, let their movements be circumspect and guided and, if you will, censored by the county society. They are accomplishing much good in lay education as well as in voting matters. I have also made this recommendation to the woman's auxiliary: do not try to replace or supplant other women's organizations that are already in existence in your counties. Coöperate with those societies already organized. But if there are none in existence, then it will be your place to act as pioneers in this matter of education of the laity. This point is being emphasized because every county auxiliary has a special committee appointed to secure subscriptions to Hygeia and they are doing good work.

*Dr. H. W. Albertson:* Just a few questions came to me as this paper was read. Pennsylvania has been slow in taking up this burden. We have had burdens a plenty but this seemed one easy to put off. Last year at the Philadelphia session, in my inaugural address, I made recommendation that a special committee be appointed to undertake this work. It was approved by the House of Delegates and I appointed Dr. Hammond as chairman of this committee. I am sure from what I have heard today that Dr. Hammond will have something worth while to bring to the Medical Society of the state of Pennsylvania at the session in Pittsburgh. And, by the way, I wish to say to all of the representatives present today and other officials of the various states that we extend you a very cordial invitation to meet with us in Pittsburgh the first week in October.

Referring to the matter of news for the lay press: After several years as secretary of the local county medical society and the Editor of its Bulletin, and being closely associated with the press which is constantly asking for news, I found that it was a very difficult matter sometimes to give them the news which to my mind was news that the public should have, and keep from them the things which I felt was not news but gossip. This is one of the things that will have to be watched very carefully as in the state and county societies efforts to get to the press the matter of news often terminates in giving out sensational matter which the press would much rather have than the sort of material it should have. Another thing is the matter of diagnosis and treatment. They are very anxious when a paper is read along preventive medicine lines in regard to some particular disease, to come back and ask you for a lot more along the lines of diagnosis and treatment. We should try to stimulate the people to realize their condition and to consult their physician, not to make self-diagnosis and give self-treatment.

Another subject brought up in Dr. Hammond's paper is one which I have been hearing a great deal about in my visits to the various county medical societies during the year, that is the periodic health examinations of the preschool child. In Pennsylvania certain health organizations have taken up the matter of examination of the preschool-age child on what they call a May-day, the first day or first week in May, and have all the children of preschool age examined at that time by a physician. In certain communities there has been an objection to this on the part of physicians because the work was said to approach "state medicine". The physicians claim that there are plenty of people who are perfectly willing to take their children to a physician for examination who are urged by the social workers to take them to a

clinic. This subject has met with a great deal of discussion in certain county societies and I would like some expression as to the experience of others in your different states.

As to the matter of periodic health examinations, I have always felt that first we must educate our physicians. It is rather common to have a patient come in and ask for a periodic health examination and then after you have conducted it properly he will tell you that he went to his own physician and asked for an examination and was told to go home and not worry about his condition, that he was perfectly all right. Now, until we can educate our own men to the necessity of properly conducting such an examination as outlined by the blank and of giving proper service for the money which he has a right to charge, and which is always freely paid, we cannot expect very much from periodic health examinations.

I am glad that Dr. Reik has taken up this matter so satisfactorily in New Jersey and am glad to hear of that progress. I know that we could accomplish more in Pennsylvania if we had a full-time executive secretary. We have a secretary and he would make a wonderful full-time one if we could make him do this, but we cannot.

The ladies' auxiliary has been a wonderful adjunct to the state medical society. They are doing very good work and we feel that they are a great deal of assistance and are glad to make use of their services in every way possible.

*Dr. Reik:* Might I ask if the New York representatives would be favorably inclined toward having this body pass a resolution requesting them to confer with the Radio Corporation of America regarding the appointment of a medical representative on their Broadcasting Advisory Council.

*Dr. H. R. Trick:* Would it not be better to recommend to the American Medical Association that this is done?

*Dr. Reik:* It was recommended to the A. M. A. about a year ago. That is such a big organization and necessarily moves so slowly, I think we should take some individual action.

*Dr. Arthur C. Morgan:* May I present a resolution.

**RESOLVED:** That the members of the Tristate Medical Conference, officially representing the state medical societies of New York, New Jersey and Pennsylvania, do herewith instruct our Secretary to present a letter to the officers of the Radio Corporation of America, expressing our opinions relative to the matter of lay education and recommending the appointment of an outstanding member of the medical profession on their Advisory Council.

This motion was seconded by Dr. Lawrence.

*Dr. Overton:* What proportion of the stations does the Radio Corporation of America Control?

*Dr. Reik:* It controls practically all of the big stations, I understand. Of course, back of that is the American Telephone Corporation which controls the Radio Corporation, and the Radio Corporation controls all the manufacturers of radio apparatus and is the body that directs what may go out from their stations.

*Dr. Overton:* Can't we make it less vague and recommend something more definite? Can't we go a little farther and recommend a member to serve on that council.

*Dr. Reik:* My idea in suggesting that it be left to the New York State group was that the Radio Corporation is a New York corporation and probably more directly influenced by the New York State Medical Society than by an other organization, and they would be in a position to name a man for the job.



*Dr. Overton:* Is this resolution putting it up to the New York State Society?

*Dr. Reik:* The Secretary would pass it on, if adopted, to the President of the New York State Society.

*Dr. Overton:* Would Dr. Sadlier take it up then and have it put through at once? Is that satisfactory to Dr. Morgan?

*Dr. Morgan:* It is a matter of fact that the 3 states represented in this conference have an official representation by order of their respective state societies, so that our action here would partake of official action.

*Dr. Reik:* What we want is to get the endorsement of this conference, for if the profession is to have a representative on the Advisory Council we would like to be sure that they get the right sort of man. If that idea is acceptable, Dr. Morgan could write his resolution afterward and I shall take care of it with the cooperation of the President of the New York State Medical Society.

The resolution offered by Dr. Morgan having been duly seconded, was voted upon and passed.

*Dr. Frank C. Hammond (closing):* I think we all agree that this is one of the biggest problems the state society has to handle. We must educate the physicians as well as the public. I learned that with the periodic health examination. Reference was made to properly instructing the medical student and teaching him medical ethics. One of the medical schools in Philadelphia has had such a course for 10 or 12 years, in which stress is laid on the value of organized medicine and its far reaching significance and what it all means. We must instruct the student in regard to what he should do when he gets into practice. The other thing is to reach the man already in practice. In Chicago, about a year ago, the A. M. A. brought out the necessity of teaching medical ethics in the school and since that time the Journal of the A. M. A. has published the course of lectures given in one of the Western schools. In that outline they showed the value of stressing this point. Several other schools have shown that they are giving a course and pursuant, I understand, to the resolution adopted by the Trustees are studying some plan to make a recommendation for the various medical schools regarding the adoption of a system of medical ethics. In this way we are bringing primarily home to the medical student this portion of our state society activities.

The Philadelphia County Medical Society, some time ago, organized a plan of getting an article each week in the papers and in order to overcome the red tape regarding the code of ethics, it was deemed advisable to have these articles appear under the name of the medical society. A little later the radio broadcasting proposition came along. We were asked to take care of the broadcasting and the speakers' names were announced. Those who were not invited to broadcast thought our men were getting a lot of free publicity and advertising. To offset that, in the next series we ruled that the name of one delivering the address should not be given, simply announcing the subject and the name of the society. But the radio audience wants to know who is talking to them, so that in the next series of broadcasting the names of the speakers were again announced. We must get rid of red tape and narrowminded notions and come out in the open, preferably under the auspices of the state society and the county society, in order to put out this educational propaganda.

(To be continued.)

## County Society Reports

### ATLANTIC COUNTY

#### Atlantic City Hospital Staff

Joseph H. Marcus, M. D., Secretary.

The monthly meeting of the Atlantic City Hospital Staff was held on July 15, 1927, in the Nurses' Auditorium. The meeting was called to order by Acting-President Walt Ponder Conaway, due to the unavoidable absence of President William J. C. Carrington.

The following committees were called upon to report: Dr. Theodore Senseman for the Training School Committee; Dr. David B. Allman for the Intern Committee; Dr. Robert A. Kilduffe for the Committee on Collection of Papers Written by Members of the Staff; Dr. Walt P. Conaway for the Purchase and Maintenance of Radium.

The scientific program consisted of: Report of Surgical Service, by Drs. Theodore Senseman and James H. Mason, Jr.; Report of Medical Service, by Drs. Samuel Barbash and Philip Marvel, Jr.

Dr. Theodore Senseman, Surgical Chief, reported his service for a period of 3 months extending from February to April, 1927, inclusive, a total of 132 cases admitted, including 68 operative procedures and 37 fracture cases. Dr. Senseman emphasized the importance of the proper approximation of fragment ends, the necessity for a sufficient amount of rest to the part, and the end results in obtaining good union with proper functioning of the extremity. He advocated use of the fluoroscope in the reduction of fractures, and stressed the importance of early accurate reduction and early mobilization with the more generalized usage of physiotherapy in after treatment.

The following case report, No. 1221, is an unusually interesting one and was presented in detail by Dr. Senseman. Patient, adult male, 25 years of age, admitted March 23, 1927, with chief complaint of intermittent and severe abdominal pains in the upper left quadrant. He stated that this pain commenced about 2 weeks prior to admission to Pine Rest Sanatorium. From there he was referred to the surgical service of the Atlantic City Hospital. Pain was described as moderately severe with an intense soreness, but at times he experienced exacerbations of very acute pain, fairly well localized in one area, mainly the upper left quadrant of the abdomen. No radiation except occasionally to the back, as a severe and lancinating pain. He vomited a few times while at Pine Rest, but stated that this was due to choking while eating certain foods. The salient features on physical examination disclosed an emaciated man with marked pallor of the skin and mucous membranes, no dyspnea and no cyanosis. Examination of the chest and heart revealed no underlying pathology. The abdomen was definitely tender in one area, over the upper left quadrant, and with definite splinting of the rectus muscle, intermittent in occurrence; no palpable masses found. Urine examination was negative. The leukocyte count was 16,500 with a differential of 80% polynuclear, small lymphocytes 7%, large lymphocytes 5%, erythrocytes 2,750,000, hemoglobin 40%, color index 0.7. On the following day the leukocytes were 21,900 with approximately the same differential count; abnormal erythrocytes, moderate

polychromasia and few microcytes. The blood culture taken on the day of admission revealed no growth in 24 hours, and 5 days later revealed no growth. The roentgenographic findings by Dr. Charles B. Kaighn stated that "The shadow of the lower left lobe of the liver appears to extend about 3 in. to the left of the spine". The temperature on admission was 104° and remittent in type.

The possibility of an abscess of the liver was taken into consideration and an exploratory puncture was performed by Dr. Senseman, with the result that pus was found. Due to situation of this abscess and in order to perform proper drainage, a rib resection was performed over the abscess in the immediate vicinity of the eighth rib on the left side. Drainage was also instituted through the abdomen. The liver was found to be adherent to the parietal peritoneum and diaphragm, with multiple abscesses of the left lobe. Immediately following operation the temperature dropped to normal and remained normal for 6 days. On April 1, 8 days following the operation, the temperature became again intermittent in type, the highest point being 103° and remained of this type until April 21. From April 21 to May 23 the patient's temperature remained normal and he was discharged in good condition.

Dr. James H. Mason, Associate in Surgery, reported the following series of fatalities:

Mesenteric thrombosis, secondary to a gastric ulcer; fracture of the vertebra; fracture of the skull with an associated fracture of the humerus and contusion of the chest; subdural hemorrhage; intestinal obstruction; fracture of the femur with an associated diabetes; intestinal obstruction; comminuted and depressed fracture of the skull. The above cases were outlined and described in full by Dr. Mason, who also presented a statistical report of the types of cases admitted under the service of Dr. Senseman.

Discussion of the surgical service followed by Drs. William E. Darnall, Samuel Barbash, David B. Allman, and Thomas Taggart. The discussion was closed by Dr. Theo. Senseman, who emphasized the differentiation of rigidity of the recti muscles and splinting of the recti muscles. He also stressed the general symptoms of thrombosis of the mesenteric vessels as pain, vomiting, collapse, bloody stools, meteorism, rapid pulse and subnormal temperature. In some cases the intestine supplied by the thrombosed artery forms a large abdominal tumor, which develops very suddenly. Pain and collapse, with sudden appearance of the tumor are the prominent symptoms and signs of these cases.

Dr. Philip Marvel, Jr., Associate in Medicine, presented a statistical report covering the service of Drs. Barbash and Marvel for February, March and April, 1927. The total number of patients were 90; this smaller number than usual being due to inactivity of hospitalization at this time of the year. Two cases of mercurial poisoning were admitted and both were discharged cured. Two cases of acute rheumatic fever were unusual in that no cardiac lesions were present. The mortality was 12%. The following cases of fatal termination were outlined by Dr. Marvel.

Case 1. Female, aged 32, admitted March 17, died March 18. Cause of death, diabetic coma. Admitted with chief complaint malaise and vague body pains. Past history of "inflammatory

rheumatism" with a stay of 6 weeks in a hospital. Three days prior to admission patient felt a dryness of the throat and general malaise; the following morning there was substernal constriction and she began to suffer with a dry paroxysmal cough and could obtain no relief. The morning of admission she became generally worse; had a dull headache and vomited simultaneously with paroxysms a green bilious fluid containing some mucoid masses. No food had been eaten for 3 days. Patient's appearance was extremely anxious, pulse rapid and weak. The salient features of laboratory examination of the urine were 30 mgm. % of albumin, 1.3% sugar, and numerous coarse granular casts. Blood: urea nitrogen 20 mgm. %. Nonprotein nitrogen 42 mgm. %, uric acid 6.4%, creatinin 2.1 mgm. %, sugar 4.90. This patient had an associated nephritis, grippe and chronic myocarditis. Insulin was administered.

Case 2. Male, 48 years of age. Admitted March 2, 1927, died March 8, 1927. Chief complaint being bleeding from mouth and bowel. Father died of "Bright's disease", mother died of "heart disease and dropsy". Patient had typhoid fever at 18, pneumonia at 20. December, 1925, patient was operated for "a gastric ulcer and growth". A gastroenterostomy was performed at that time. Has kept well until onset of hematemesis 3 days prior to admission. There were no premonitory symptoms. The important findings in the blood examination showed erythrocytes 1,320,000; hemoglobin 20%; color index 0.9; leukocytes 25,250 with 93% polymorphonuclear, 5% small lymphocytes, 1% large lymphocytes, one transitional, abnormal erythrocytes, moderate anisocytosis, macrocytes predominating; slight polychromasia; blood typing was of group 2; bleeding time 3 minutes and 4 seconds; coagulation time 5 minutes; blood Wassermann and Kahn tests negative; urine showed innumerable pus cells. Several transfusions were performed, using 400 c.c. of blood by the Unger method.

Case 3. Male, 52 years of age, occupation laborer. Admitted February 6 died February 18. Chief complaint was shortness of breath. No important facts in either personal or family history with the exception that patient suffered from frequent attacks of tonsillitis up until 5 years ago. The present illness commenced 2 weeks prior to admission, with a slight cough and some frothy expectoration; also complained of shortness of breath and condition grew progressively worse compelling him to leave his position as chair pusher, which has been his occupation for the past 15 years. At this time he developed a moderately severe and continuous pain in the region of the umbilicus. The blood count showed nothing abnormal; blood Wassermann negative; sputum examination negative; urine contained numerous pus cells and many granular casts. Examination of the heart showed apex impulse neither visible nor palpable. The rhythm is regular and rate 96, sounds of poor quality. Heart enlarged to left. Diminished resistance over the bases of both lungs posteriorly, and breath sounds distant. Many fine and coarse râles over both lower lobes, of the right middle lobe posteriorly, most numerous over the right lower lobe; over the left anteriorly the inspiratory stridor accentuated. Chronic myocarditis.

Case 4. Female, 68 years of age, admitted February 23 died February 27. Admitted in a



condition of stupor with marked dyspnea. History obtained stated that patient had been ill for 1 week suffering from marked dyspnea and delirium. Laboratory examination of the blood and urine disclosed negative findings. Patient never recovered consciousness; died of chronic myocarditis and chronic valvulitis.

Case 5. Male, 54 years of age, admitted March 2 died March 3. Diagnosis, bilateral lobar pneumonia. The sputum typing demonstrated pneumococcus type 4.

Case 6. Female, 45 years of age, admitted April 13 died April 27. Admitted in an unconscious state with convulsions. The afternoon of admission patient told her husband that she was suffering with a headache and felt weak; 2 hours later had a convulsion, which lasted about 2 minutes; had another attack 1 hour later, more severe than the first; admitted to hospital. Since admission had 2 convulsions each lasting about 2 minutes. Lumbar puncture disclosed negative findings. The urine contained 450 mgm. of albumin, many hyaline and granular casts, with a trace of acetone and indican. Ophthalmoscopic examination by Dr. H. L. Harley; eye grounds showed no lesions, discs plainly seen and not abnormal. Mouth culture showed moderate number of fusiform bacilli and spirilli of Vincent. Roentgenographic examination showed no fracture of the skull nor of the spine. The salient features of the necropsy showed ulcerations of the gums and tongue, clotted dark blood under the dura extending over the entire right hemisphere of the brain; lungs showed hypostatic basal congestion; the kidneys small and the capsule strips with difficulty. Anatomic diagnosis, subdural hemorrhage, chronic nephritis, Vincent's angina of the mouth.

Case 7. Female, aged 65 years. Admitted March 15 died March 17. Chief complaint, anginal attacks of precordial pain which radiated down left arm and ulnar side of forearm and hand. This patient had recurrent fibrillations imposed upon a chronic myocarditis and for the past 3 months had suffered anginoid paroxysms relieved by nitroglycerin. The salient features in the physical examination revealed a chronic myocarditis. The important findings in the necropsy were: lungs showed well marked anthracosis, both lungs showed some degree of edema and a perceptible bronchitis; the liver was scirrhous, having a nutmeg appearance; the spleen quite sclerotic and with wrinkled capsule; the kidneys showed a well marked chronic interstitial nephritis; the uterus was atrophic and had several subperitoneal fibroids; the heart was enlarged and showed an evident hypertrophy of the ventricular walls, especially the left. Practically all the valve leaflets were markedly sclerotic and the aorta was covered with numerous large atheromatous plaques. The myocardium was somewhat flabby and the coronary arteries were sclerotic. Sections through the coronary arteries, on microscopic examination showed a marked sclerosis and, through the wall of the aorta, a marked atheroma. The heart muscle showed a perceptible interstitial fibrosis with small deposits of hemosiderin and focal collections of lymphoid cells. The capillary vessels were sclerotic. Dr. R. A. Kilduffe, Director of Laboratories, concluded that the picture of the heart muscle was due apparently to nutritional disturbances following failure of the coronary circulation.

Case 8. Male, 38 years of age. Diagnosis—par-

prostatic abscess accompanied by Broncho-pneumonia. A complete autopsy report followed.

Case 9. Male, 38 years of age. Diagnosis—paraldehyde poisoning. This patient was a heavy drinker and during an attack of grippe became very restless and was unable to sleep, as a result of which he took 4 drams of paraldehyde. The following day he took 1½ oz. of paraldehyde. On admission to the hospital he had a very strong odor of whiskey and paraldehyde on his breath, and was unconscious for several hours, after which he became very nervous. He was discharged 2 days later, signing his own release. Dr. Barbash quotes Dr. Hobart A. Hare; as follows: "Paraldehydum, U. S. and B. P., is a form of aldehyd used as a soporific and nervous sedative, and is a clear, colorless liquid with an ethereal odor and a burning, followed by a cool, taste. It should be kept in dark, well-stoppered bottles in a cold place. Paraldehyde is readily soluble in alcohol, moderately so in cold water, less so in hot water. It possesses the disadvantages of being necessarily given in large doses and of having a disagreeable taste and odor. It is also prone to disorder the stomach. Paraldehyde kills by respiratory failure when taken in overdose, but is not so depressant to the heart as is chloral, and it is not a case to be classed as a dangerous drug. Clouster records a case which received 2 oz. by accident without grave results. The drug soon loses its power as a soporific. As it is speedily absorbed and acts promptly, it ought to be taken after the patient is in bed. The dose is 20 minims to 1 dram in capsule."

Case 10. R. W., colored male, age 28 years. This case we inherited from the previous service. Drs. Scanlan and Davidson attended this man through an attack of lobar pneumonia and typhoid fever. When presented to us the man was suffering from an extremely painful spot in the region of the spinal column. A diagnosis had been made of typhoid spine. The interesting point about this case is, that the patient was admitted to hospital on October 31 with pneumonic symptoms. Evidently the Widal was done as a matter of routine, rather than with the thought that typhoid was present, for 3 days after admission progress notes mention, among other things, "Widal positive", with the further notation that "this might be a pneumonic onset of an enteric fever".

As we all know, pneumonia complicating typhoid fever at incipency is not common. Osler reports 15 cases of lobar pneumonia in a series of 1839 typhoids, only 1.8%. Liebermeister reports 52 cases of lobar pneumonia out of 1420 typhoids, or 3.7%. It may occur at any stage of the disease, at the beginning, at its height, or period of decline. Typhoid fever may begin suddenly with the symptoms of a frank pneumonia and the characteristic physical signs of the disease. This is the pneumotyphoid of the French writers. The disease runs a course similar to that of primary lobar pneumonia for a number of days and there is nothing in the clinical history to indicate the presence of a complication by a secondary disease. Persistence of the fever beyond the usual period and the presence of rose spots, splenic enlargement and intestinal symptoms all reveal the underlying typhoid infection. The pulmonary lesion may be a local manifestation of the typhoid bacteremia, a typhoid bacillus pneumonia, or it may be due to a complicating infection by the pneumococcus or by one of the different pneumonia-producing organisms.

On November 1, the blood showed 28,400 leukocytes with 83% polys. The Widal was positive for bacillus typhoid in dilutions of 1:20 up to 1:60. My observation that the Widal was done as a matter of routine was made because we do not look for a positive Widal with a leukocyte count of 28,400. On December 12, or about 6 weeks after admission, the leukocyte count was 6200 with 65% polys. This was evidently after the pneumonia had subsided and the typhoid was still in evidence. At the beginning of the illness the temperature range was high and in keeping with that of pneumonia, but as the days passed and the pneumonia subsided, the temperature, while still remaining up, fell about 2° and there maintained its level as a typhoid.

Another interesting factor in this case is the result of the bacterial findings obtained from the incised wound on the back, the so-called typhoid spine. There were no typhoid bacilli found in the culture taken from the wound. The x-ray reports in this case are as follows: "December 14, no bone changes noted in the lumbar spine at this time. There is a slight irregularity of the upper border of the right acetabulum, which may be a beginning bone change in this location." One month later, January 14, x-ray report reads, "The body of the first and second lumbar vertebrae on the right side show irregular bone growths. The upper portions of the body of the fourth lumbar vertebra shows most marked atrophic changes. Unable to manipulate patient as desired on account of pain." On February 11, "Nothing unusual observed about the right acetabulum. New formation of second and third lumbar vertebrae most noticeable about the bodies. Typhoid spine."

What is a typhoid spine? In my opinion, a typhoid spine is an osteomyelitis of the vertebrae, one or more, from the pus of which the typhoid bacillus is recovered. An osteomyelitis caused by any other organism I do not consider a typhoid spine.

He was referred to the surgeons for operation. They incised the abscess on February 1, and released about 1 dram of pus. He felt better after the evacuation. His wound gradually healed and he was discharged February 27, about 4 weeks after operation, and after 118 days in the hospital.

## BERGEN COUNTY

### Hackensack Hospital Staff Report

Spencer T. Snedecor, M.D., Reporter

The last spring meeting of the Staff of the Hackensack Hospital was held on June 20, with Dr. David Corn presiding.

From the mortality of the preceding month 4 cases were discussed. The essential point in each discussion was to show how the case might have been better treated or if anything further might have been done to save the patient's life.

*Exophthalmic Goiter.* Dr. L. W. Black of Rutherford.—The patient was first admitted to the medical service 6 months previously in an acute toxic condition. Pulse was 125, basal metabolism + 25, weight 90 lb., very nervous, tremors; a typical picture of toxic goiter. Carefully supervised rest, diet and symptomatic care improved her greatly. On discharge after 6 weeks, pulse was 90, basal metabolism + 1, weight 98 lb., and general condition excellent. It was noted that

her tonsils were badly infected and a few weeks later they were removed, the patient standing the operation very well. The case was followed in the dispensary for a while and then she ceased to come, apparently remaining in good health. Soon thereafter she fell into the hands of a chiropractor who gave her several treatments for some manner of pain. On last admission, 5 days before death, patient was in extreme toxic condition, emaciated, vomiting and quite hopeless.

Several striking points were brought out in the discussion. (1) The futility of medical treatment of toxic goiter. Every case should be considered surgical and when a remission is obtained operation should be performed. (2) The misuse of iodine in such cases. Iodine should never be given (and was not in this case) until just before operation. (3) Dr. S. T. Hubbard, for the throat service, brought out that even though infected tonsils may be a potent factor in producing the toxic condition; their removal will not cure the underlying condition.

*Peritonitis Following Operation for Chronic Appendicitis.* Dr. T. L. Caldrony of Ridgefield Park.—The patient was studied for some months and the diagnosis confirmed by series of roentgenograms. The operation was a simple and straightforward appendectomy. Infection in the wound became apparent a few days postoperative; general peritonitis with ileus developed and the patient died. The infecting organism was a short chain streptococcus. Diligent search for a break in technique was made. All of the sterile sheets and dressings were cultured. The whole procedure was thoroughly gone into but no clue to the source of infection was discovered.

*Shock Following Prostatectomy.* Dr. W. D. Webb of Hackensack.—The old man, of 70 years, was a patient in the hospital for 2 months before operation. His general condition was fair and he was quite insistent upon operation. A perineal prostatectomy was performed under spinal anesthesia. Six hours after the patient was returned to his room he began to collapse and died 3 hours later. Limited autopsy revealed the mesenteric vessels engorged and black with blood.

The possible causes of death were discussed. (1) Splanchnic dilatation from spinal anesthesia. Dr. Wolowitz, the anesthetist, maintained that since the patient's blood pressure remained up, and his condition was satisfactory until long after the anesthesia had worn off, the anesthesia could not have contributed. (2) Splanchnic dilatation from delayed shock. (3) Mesenteric embolus or thrombosis. The seriousness of prostatectomy was emphasized; the choice of anesthesia discussed and the question raised whether the patient would not have benefited from the two-stage procedure.

*Purpura Hemorrhagica.* Dr. E. E. Sawyer of Hackensack.—This child was sent to the hospital by a nose and throat specialist because of frequent nasal hemorrhages. The patient showed the effects of severe loss of blood. The blood picture was that of secondary anemia with all manner of abnormal cells. Bleeding continued at intervals from the nose. Several times the patient vomited black blood. Melena was noted in the stools and the urine was black. Several transfusions were performed but the child did not react, and quickly succumbed. The diagnosis of fulminating purpura hemorrhagica, in which the



patient bled from all the mucus membranes, was made. Hemophilia was excluded because the patient did not react to transfusions.

### CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter.

The semi-annual meeting of Cumberland County Medical Society was held at the Newcombe Hospital, Vineland, June 12, with Dr. H. H. Wilson presiding.

Dr. D. Woodruff, of Vineland, was elected to membership, and Dr. John Winslow, a former member, was reinstated.

Dr. Garrett Miller related his personal experience with the removal of 2 vesicular calculi, which had not been recognized under x-ray examination.

Dr. Thomas C. Stelwagon, of Philadelphia, delivered an address on the "Symptoms and Treatment in Prostatic Disease". He stated that successful operation depends largely upon the proper use of "how, when, and where". Personal preference was for the suprapubic route because it is simpler both anatomically and surgically. Cystoscopy should be leavened by discretion and judgment; it may be done if the condition permits its performance without trauma. The vitality of the patient must be duly considered and malignancy must always be in mind. In malignant cases, radium may relieve pain but deep x-ray treatment produces the best therapeutic results. Where radium is used first, there is apt to be delay in healing. The punch operation is the most practical; open the bladder and punch suprapubically, removing the entire gland from its capsule. Pass a bougie to smooth out rough places. Pack at once; much of the mortality rate is due to hemorrhage. Fix bladder with one suture as subsequent guide. Use gas oxygen for anesthesia, if possible. With regard to a two-stage operation, be guided by the patient's condition. Some reliance can be placed upon blood chemistry; if creatinin is high, resort to the two-stage operation. Generally speaking, however, this operation causes mental depression. The anticipated complications are pneumonia and kidney insufficiency. If hiccup occurs, give high colonic irrigations. Whiskey may be helpful, as is also blood transfusion. Get the patient up as soon as possible, putting on a belt if necessary.

Dr. Leon Herman spoke of the "Progress in Prostatectomy". The mortality rate rises in the fifth and sixth decades. Delay on the part of the general practitioner in submitting cases to the surgeon is an important factor in the mortality rate. Cardiovascular disease is a matter for major consideration. The perineal route is perhaps best for complicated conditions. Remove urine from retention cases by stages; otherwise, distinct depression will result—fall of blood pressure and loss of appetite. Spinal and sacral anesthesia have been successful in his hands.

### MIDDLESEX COUNTY

J. M. Gutowski, M.D., Reporter.

The Middlesex County Medical Society held a meeting Tuesday evening, June 28, 1927, at the Nurses' Home, Perth Amboy City Hospital, Perth Amboy, Dr. Henry, Jr., calling the meeting to

order at 9 p. m. Due to the late hour, the regular reading of the minutes was dispensed with.

Dr. Harrison Martland, of Newark, N. J., was introduced as the speaker of the evening. His subject was "Cardiac Syphilis". His lecture was illustrated with lantern slides. A general discussion followed Dr. Martland's very interesting talk. At the close of his lecture, a rising vote of thanks was given Dr. Martland on motion of Dr. McCormick.

Three new members were admitted to the society: Dr. Alden P. King, of Milltown, N. J.; Drs. Karshmer and F. Coughlin, both of New Brunswick.

About 30 members attended the meeting.

### MORRIS COUNTY

#### Occupational Therapy Organization

Marcus A. Curry, M.D., Reporter

Occupational Therapy in New Jersey, which has been carried on intensively for years in various institutions, took on concentrated impetus on Wednesday afternoon, June 22, at the State Hospital at Greystone Park, where a group of 80, composed of physicians, directors of occupational therapy, occupational therapists and others interested in this line of work, gathered for luncheon and to consider the forming of a New Jersey unit similar to the Occupational Therapy Societies that already obtain in 19 other states, in affiliation with the American Occupational Therapy Association. With Miss Louise Weeks of Skillman as Temporary Chairman and Miss Rebecca A. Adams of Greystone Park as Secretary, the consideration of the purpose of the meeting got under way. Those responding to the invitation of the chair to express their sentiments emphasized the health benefits and economic value of Occupational Therapy and stressed the importance of organized effort for enlargement and betterment of this field of treatment, in the state, the county and the municipality.

Prefacing his remarks with words of welcome, Superintendent Dr. Curry spoke in high favor of Occupational Therapy and organization. Others championing the purpose of the meeting were Miss Eleanor Clarke Slagle, Secretary-Treasurer of the American Occupational Therapy Association and Director of Occupational Therapy in the hospitals throughout New York State, who gave freely and helpfully of her store of experience; Dr. Arthur G. Lane, Clinical Director; Dr. George B. McMurray in direct charge of occupational therapy activities; Miss Rebecca A. Adams, director of ward occupational therapy at the State Hospital, Greystone Park; Dr. Guy Payne, Superintendent, Essex County Hospital; Dr. Edward Guion, Superintendent Atlantic County Hospital; Dr. Kessler, Director of Physiotherapy, Beth Israel Hospital of Newark; and others.

Messages of regret for their enforced absence from the meeting because of imperative calls upon their time, were received from Commissioner Ellis of the State Department of Institutions and Agencies, favoring organization and offering coöperation, and from Dr. Paul Keller, President of the New Jersey Hospital Association also favoring organization and extending an invitation when organized to hold annual meetings in conjunction with the New Jersey Hospital Association similar to the associated meetings of

the American Occupational Therapy Association with the American Hospital Association.

The decision to organize being unanimous, 56 signed the roster of membership and temporary officers were elected; Miss Louise Weeks, President; Miss Rebecca A. Adams, Secretary-Treasurer; Dr. Guy Payne, Dr. Edward Guion and Dr. Kessler a committee to act in conjunction with the president and secretary to draw up constitution and by-laws.

After the meeting a tour of inspection of the institution was made, with particular reference to the occupational therapy department and its new building nearly completed, being one of the group of buildings provided out of the half-mill tax.

### UNION COUNTY

Russell A. Shirref, M.D., Reporter.

The Union County Medical Society combined its quarterly meeting with an afternoon of golf at the Colonia Golf Club. The Ladies' Auxiliary of the society, recently organized, also gathered there for the afternoon, spending a few hours playing bridge.

A dinner was enjoyed by the doctors and their wives at 6.30 o'clock in the evening, followed by separate business sessions at 9 o'clock.

More than 50 doctors from Union County attended the men's meeting, conducted by Dr. George L. Orton, of Rahway, the President.

A resolution was adopted deploring the great loss to the community and society in the recent death of Dr. Robert R. Sinclair, of Westfield.

### Resolutions

Robert Rees Sinclair, a practising physician in Westfield, N. J., since 1895, died July 11, 1927.

His was a busy life and many people feel his loss as an advisor, counsellor and friend. He was conscientious in his work and faithful in the performance of his professional duties.

The Union County Medical Society, of which he was a member, extends its sincere sympathy to the bereaved mother, daughter and son, who survive him.

Resolved, a copy of these resolutions be sent to the family of Dr. Sinclair, published in the Journal and spread on the minutes of this society.

Joseph B. Harrison,  
George S. Laird,  
Frederick A. Kinch,  
Committee.

Dr. Walt Conaway, of Atlantic City, new President of the New Jersey State Medical Society, who was a guest of honor, addressed the organization. He outlined the work of the medical societies for the coming year and solicited the co-operation of the local organization.

Another address was given by Dr. J. B. Morrison, of Newark, Recording Secretary of the state society. His subject was on toxin-antitoxin, expressing a hope that by 1930 New Jersey would have no more diphtheria.

Dr. Henry O. Reik, Editor of the State Medical Journal, spoke on the work of his office and the Journal.

"Cancer and Its Treatment by Radium" was the title of the paper read by Dr. Edgar Ill, of

Newark, who has had wide experience in that field. The paper was later discussed by Dr. F. Quinn, of Elizabeth, a radium specialist of this vicinity.

Three new members were welcomed into the organization: Drs. Thomas P. Blair, and Stephen Aczel, of Philadelphia; and W. R. Smith, of Roselle. Four other physicians were proposed for membership, and will be voted upon at the next meeting in October.

Discussion anent the holding of eight meetings a year, instead of meeting quarterly as at present, occupied part of the meeting but action in the matter was held over until the next meeting. It was pointed out that many county societies had increased the number of meetings to eight and had aroused a more sustained interest in their members.

## Woman's Auxiliary

### Union County

Coincident with the regular quarterly meeting of the County Medical Society, the Woman's Auxiliary held its second session at the Colonia Golf Club on the afternoon and evening of July 13, under the presidency of Mrs. George L. Orton. A bridge party, followed by dinner with members of the county society, and then a separate session for transaction of business proved so enjoyable that a similar procedure is contemplated for the next meeting.

The evening session was attended by officers of the State Medical Society; Dr. Reik introduced the new President, Dr. Walt P. Conaway, and both addressed the auxiliary upon the problems confronting the county societies and their auxiliaries.

New members were announced, including Mrs. Frederick A. Kinch, Westfield; Mrs. F. Cardinale, Mrs. Anthony W. Lamy, Mrs. Arthuro R. Casilli, Mrs. Archibald Sinson, Mrs. Thomas J. Walsh, Mrs. E. W. Hoagland, and Mrs. Irving Lerman, Elizabeth; Mrs. George E. Galloway, Rahway; Mrs. Fred Aldee, Colonia; and Mrs. J. W. Dennin, Roselle.

### WHAT WE NEED

- A little more kindness  
and a little less creed,
- A little more giving  
and a little less greed,
- A little more smile  
and a little less frown,
- A little less kicking  
a man when he's down.
- A little more "we"  
and a little less "I",
- A little more laugh  
and a little less cry,
- A little more flowers  
on the pathway of life,
- And fewer on graves  
at the end of strife.

(Author Unknown)



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## INTESTINAL OBSTRUCTION

JOHN F. ERDMANN, M.D.,

Professor of Surgery, New York Post-Graduate  
Medical School,

New York City.

This subject is considered under the head of preoperative and postoperative types. The preoperative type may be cited as being due to normal anatomic openings; anatomic deformities; former infection producing bands and adhesions; new growth; foreign bodies found in the anatomy, as gall-stones and fecaliths; finally, foreign bodies introduced from without. The postoperative cases include all obstructions that follow either shortly after an operation or those remote, years elapsing in many before materializing. The preoperative cases of infective origin will naturally include those conditions subsequent to nonoperated attacks of appendicitis, extra-uterine rupture, inflammatory tubal origin, perforation of ileum, gall-bladder or stomach, diverticulitis, and at times some with general infective process pathology not well established—as in pneumococcus peritonitis, typhoid, etc.

In any of these mentioned diseases, bands or adhesions may form, that for long periods of time may be innocuous. Then a condition of twisting, exaggerated kinking due possibly to hyperirritation, arises that does not correct itself, the bowel becomes edematous, and the mischief is done. Again, a loop of intestine passes through a cloaca, produced by bands from one loop to another or a band to the mesentery, which may dislodge itself many times until an excess of material is in the

herniated loop, making peristalsis difficult, a reflex contraction takes place and the beginning of gangrene is on its way.

No more frequent cause of obstruction exists than tumors and those chiefly of the carcinomatous variety. They are prone to be slow in their symptomatology, due to the location usually in the upper mid and lower colon. This type of obstruction gives many early warnings such as constipation and diarrhea, anemia, blood and mucous stool, frequency of desire to defecate, pains in the back and loss of weight. The age of the patients in this class of obstruction is a great help in diagnosis, as they are usually beyond the forties. X-rays are an invaluable aid in diagnosis in this variety of obstruction. The nonmalignant growths, the polypoid type and the submucous lipoma are diagnosticated usually upon operating although occasionally x-rays will be of aid.

Foreign bodies from within include gall-stones that have entered the intestinal tract by perforating the gall-bladder during attacks of acute cholecystitis. Numbers of these patients have been seen, the stone in many found in the terminal ileum. I have reported at various times several of them. Thus, recently a girl of 19 or 20 had a stone that could not be accounted for as a gall-stone, that showed by x-rays as distinctly in the lower ileum as if it were a pebble. Upon exposure of the intestine it was found to act as a ball valve obstruction about 3 feet from the ileocecal valve. Very large coproliths or fecaliths have been removed, one by myself larger than a goose egg.

Foreign bodies introduced from without

are intentional, from ignorant beliefs, as during the Irish famine it was thought that anything preventing defecation would reduce hunger, therefore stones were introduced into the rectum. The unintentional ones, those introduced by drunks and the mischievous, introduced per rectum, overlooked because the malefactor had no recollection or the recipient was also in a condition past recalling his actions for a period of time.

Anatomic defects, such as cloaca in the mesentery or the omentum, Meckel's diverticulum and long mesentery or mesocolon are sometimes found. In the cloacal cause we have a defect in the omentum or mesentery through which a loop of gut passes from one to many times, finally the loop is so large or contents overload the loop so that reduction becomes impossible and obstruction symptoms arise. Torsion or volvulus due to long mesentery is a fairly frequent source of obstruction in the sigmoid. Meckel's diverticulum acts as a band, i. e. a loop of intestine passes beneath or wraps about the diverticulum and mechanically acts the same as if an ordinary band obstruction were in progress. The symptomatology of preoperative obstructions is similar to that of the postoperative type but in the postoperative form one has a definite history, that of operation or operations to aid the clinician and surgeon. The symptoms, therefore, will be taken up with the postoperative consideration.

In addition we have the natural rings. The inguinal and femoral, the openings into the diaphragm for transmission of vessels and the esophagus, and various openings in the abdominal cavity; the foramen of Winslow being a pronounced one. All of these may become sites of hernia, and an incarceration or strangulation in any of them may follow. Fortunately, the many hernia bearing individuals are complicated by a very small percentage of obstruction, incarceration or gangrene. Nevertheless, the type of hernia in which a portion of the lumen is nipped, in which obstruction follows, presents as a rule no visible evidence of tumor like that seen so beautifully as a guide to diagnosis in the full blown hernia and therefore the most

careful palpation of the rings is demanded. It is this type of hernia that frequently requires an abdominal section before a proper diagnosis is made. Hernia in the natural openings diaphragm, foramen of Winslow, or at ligament of Treitz, in the peritoneal cavity can only be diagnosticated upon opening the abdomen.

*Postoperative Type.* It would be well to classify this part of the subject into the early, or those cases occurring during the first 2 weeks after operation, and the remote, or those from weeks to several years following operation. It is with the early variety that we are most concerned, as anything that prohibits immediate repair following an operation leads to anxiety both on the part of the operator and unnecessarily so upon the family, whom we in all probability have told that the operation contemplated is one followed by complete recovery in a short period.

To the operator, anxiety is doublefold and he can but ask of himself if there was a slip in technic that had produced peritonitis with its usual complications or had there been undue handling of the tissues producing the effect of adhesive kinks, angulations, etc.; had nature been unkind in forming premature dense bands or adhesions; had there been some undiscovered or overlooked pathology such as a carcinoma of some segment of the intestine; a cloaca in the omentum; bands of adhesions from some former pathology now activating; or, the operator not wishing to believe his symptomatology, attempts to delude himself by arguing that it is merely a spastic or atonic condition that will be relieved in a few hours. The etiology of this subject is of paramount issue.

Among the causes of early postoperative obstruction, infection takes precedence in our thoughts. Infection from soiling of the peritoneal cavity before we have seen the patient; as in all the acute abdominal patients, or in patients of election when the infection is due either to an avoidable or unavoidable soiling of the peritoneal cavity. Other causes are those manifestations that have all the earmarks and fatalities of general peritoneal adhesions early formed, in patients with infec-



tions, as in delayed appendicular cases where mass infiltration exists or general soiling of the peritoneal cavity is to be combatted. My most frequent early intestinal obstruction is due to this cause and seen by me most often in children under 12 years of age with appendicitis; the adhesions are usually between the terminal ileum and the cecum or between the ileum and the brim of the pelvis. In fact, I have seen the condition so frequently in this class of patients that I am moved to mention the possibility to the family and family physician. Adhesions forming kinks and angles belong to this class. Bands may be the source of an early obstruction but usually are the cause in the remote or late variety. It has been my misfortune to see one such on the ninth postoperative day, in which a band fully 3/16 in. in diameter, well organized, produced a fatal obstruction in a supravaginal hysterectomy.

*Suture.* The taking of deep retention sutures after the peritoneal cavity has been closed has been observed as a cause of death in 2 patients in the services of 2 of my associates. These were due to the deep traction or retention sutures grasping a coil of gut, or, as in a third instance, of a loop of gut being caught between the suture and abdominal wall before tying. I am careful in my deep suture work to exercise care that no deep suture goes below the fascial edges and this can only be done by placing traction sutures before the musculature is closed.

End-to-end and side-to-side anastomoses have been known to produce obstruction, first by making the anastomosis so thorough by infolding the gut in the end-to-end variety that practically no lumen exists. This is followed by edema of the parts making a complete closure; or some foreign matter will act as a plug in the lumen newly formed. These obstructions in many instances automatically cure themselves if the patient is allowed nothing but liquids for a week or 10 days; the edema subsides and the channel eventually becomes sufficiently large for transit. This type of obstruction is not so readily overcome in the large intestine, as the contents of this portion of the bowel beyond the

hepatic flexure become more solid. In the side-to-side suture variety, rarely done nowadays, the same condition may arise, but the cause is more likely to be too small a lumen left. Certain gynecologic operations about the round ligament, especially the original Gilliam operation, are productive of intestinal obstruction. In the Gilliam operation, an operation I have never done nor allowed being done on my service, after the ligaments are shortened, we have between the parietal peritoneum and the uterus the U space above the fundus and the triangular space to the outer side of each round ligament. I have seen 3 patients die following a slipping and strangulation of a loop of gut in one of the spaces formed by this operation and recently have had 2 patients reported with remote obstructions due to this operation.

Finally, the unobserved pathology present when operating for some definite symptom bearing lesion. I have operated twice, removing the appendix for so-called chronic appendicitis, when within 10 days obstruction was found due to a carcinoma of some portion of the transverse or descending colon. I have also seen this cause in the hands of some of my colleagues 5 times. The appendicular distress is due to backing into the appendix of gas or liquid feces as a result of the obstructing growth. The same argument, overlooked pathology, can be applied to old adhesions or bands and cloaca or anatomic defects (congenital) in the omentum or mesentery. Recently, I removed the appendix in a patient in whom I fortunately discovered at the same time, a congenital opening in the mesentery of the terminal ileum through which a loop of gut was then protruding and during the early part of September, 1924, while preparing to do a gastro-enterostomy, found a portion of omentum attached to the proximal coil of jejunum, through which intestines were herniating. A repair of the edges of the gap after reduction of the intestine in the former and release of the omental adhesions in the latter was followed by prompt relief in each instance. Also, recently I was called in consultation to a third day postoperative duodenal ulcer patient whom I was

positive had an intestinal obstruction, where reoperating revealed a submucous lipoma as the cause of an obstructive intussusception. Proper closure of the gap in the mesentery following a resection of gut, must be very carefully considered.

*Remote Obstructions.* These are due to old, well organized bands, kinks due to densely and strongly organized adhesions with contraction; loops of bands or adhesions through which coils of intestine pass; malignancies, nonobstructive, existing at the time of the operation, that have grown sufficiently to be obstructive.

The symptoms of obstruction in the early types are difficult to recognize in the first few days and difficult to differentiate from gastric dilatation, vomiting, gas due to morphin, influence upon peristalsis, or to peristaltic inhibition by trauma. It is unfortunate that one must wait until cramp colic or peristaltic waves are evident before feeling positive. Vomiting, with or without cramp colic and distress, is always a symptom of grave importance and when added to it we have cramp colic or distension or visible peristalsis, one should not hesitate to demand immediate exploration. The vomiting alarm, like the repeater alarm clock, repeats itself until the patient is run down, unless checking by the surgeon of the conditions producing the alarm is quickly accomplished. First, we get the gastric contents, then duodenal, then jejunal, finally fecal. A description of these is not called for as we have all seen these varieties as interns or visiting physicians in hospitals too many times not to be able to recognize their importance. Visible peristalsis can mean but one thing and that is operation.

A sign to me of great importance is that of the cecal splash and tinkle on palpation; by giving a quick push to the left middle and lower quadrant while auscultating the right lower. Fecal odor to the breath comes as a late sign. The absence of flatus or movement by rectum may be an early as well as a late symptom or sign. Recalling that both gas and feces may be in the distal gut below the obstruction, one must be careful of the evidence of gas or feces at the onset. Enemas

given for producing a movement, must be carefully introduced so that no air be injected and thereby obscure the diagnosis or delay it unnecessarily. Singultus, as an early symptom, must be given full weight, as must also the presence or absence of borborygmus.

In the remote obstructions, one will, in carefully taking the history often obtain the statement that a sudden sharp abdominal pain was felt and that it was accompanied or followed by nausea, vomiting, abdominal distress or distension. Add these symptoms to the fact of a previous operation and one can surmise that an obstruction exists or is imminent. Roentgenology has of recent years been an aid. It is quite easy to see the proximal gut distended with gas, beyond normal size and frequently a sharp point of termination of the gas loop. No illuminating agents need be used; in fact, they are contraindicated.

To recapitulate, the aids in diagnosing an obstruction are singultus, cramp colic, vomiting and the vomitus. X-rays showing the over distended proximal gut, with often a sharp termination. The splash and tinkle in the right lower quadrant in those patients with the obstruction in the mid or terminal colon. The same sounds in the mid abdomen in lower ideal obstruction. Borborygmus present or absent. High pitched sound of gas passing through the intestine with occasional splash and tinkle as the gas passes over or through liquid or through a narrow lumen. Visible peristalsis means but one procedure, i. e. operation.

Diagnosis of high obstruction is evidenced by the rapid toxemia these patients show. There is a profound state of collapse, indifference, delirium, cyanosis, rapid feeble pulse, clammy skin, dilated pupils and gasping respiration, and diminished urinary output.

The outcome for all obstruction patients depends upon the site of obstruction, the duration of the obstruction and the extent of the procedure. The higher the obstruction the greater the mortality. The longer the duration, needless to say, the greater the mortality. The more complex and complete the operation, the greater the mortality. Patients with high obstruction must be rapidly dealt with, a



preliminary enterostomy performed and salt solution introduced, either normal or more concentrated, until they can stand a later operation of search and repair of the cause. When bands are readily found, the release is easily accomplished. In many instances the distended gut is better dealt with by an enterostomy until the patients' condition will allow of further procedure.

I have been fortunate in doing an enterocolostomy upon 5 or 6 patients in the past 8 years. These have been chiefly in adhesion, kink and angle cases. The terminal distended loop of small intestine has been anastomosed with the ascending colon or cecum with perfect success in each patient. None of them have complained at all of any distress during the years following operation. The features recommending this operation are that an artificial anus (enterostomy) has been done away with. That the abdomen has been closed immediately and that no second or third operation is necessary.

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### **GALL-STONES AN ANALYSIS OF SIGNS AND SYMPTOMS**

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RALPH W. WALTON, M.D.,  
Montclair, New Jersey.

The following report is based on the study of 95 cases of cholelithiasis, demonstrated as such at operation. I shall limit it chiefly to the discussion of gall-stones from a diagnostic point of view, and consider mainly the facts brought out in a careful history and physical examination.

An extensive literature on the subject bears witness to the fact that gall-bladder disease greatly interests the profession. That it is of vast importance to the public one may gather from the recorded observations of able clinicians. Alvarez<sup>1</sup> says that 5 to 12% of all women coming to autopsy have gall-stones. Haberland<sup>2</sup> reports gall-stones in 10.5% of cadavers examined by him. Hurst<sup>3</sup> believes that gall-stones may be found after death in 10% of all people over 20 years of age. Carman, MacCarty and Camp<sup>4</sup>, who base their

opinion on a review of 5000 cases of cholecystic disease, express a doubt whether any person more than 30 years of age can boast of possessing a normal gall-bladder.

#### **SOME ETIOLOGIC FACTORS**

In the majority of cases, gall-stones are diagnosed only in patients 35 or more years old. For this reason, middle age is thought to be a predisposing cause. On the other hand, someone has said that "cholecystitis is a disease of the young with middle aged manifestations". Whether this statement be true or not, gall-stones often do occur in young people. Farr<sup>5</sup> believes that "cholecystitis in children is probably not very rare but is usually unrecognized". Kellogg<sup>6</sup> writes of 64 cases of gall-bladder disease in children, among which were 7 cases of gall-stones diagnosed before operation. Carey<sup>7</sup>, Edington<sup>8</sup>, and Paterson and Wyllie<sup>9</sup> all report gall-stones occurring in children. Finally, Still (quoted by Paterson and Wyllie) collected from the literature 23 cases of gall-stones in children under 14 years of age—some in babies of 3 months who died from other causes.

In the present series there were no children. The youngest patient was a girl of 18 years who had suffered from "bilious attacks" all her life. The oldest was a woman of 78 with stone in the common duct. The average age for the group was 47.15 years—46.1 years for the women and 54.16 years for the men. Of the 16 patients who developed typical symptoms of gall-stone colic before the thirtieth year, 15 were women. Of the 10 cases which came to operation at or before 30 years of age, all were women. These facts seem to indicate that cholelithiasis is not of uncommon occurrence in young adults—more especially in women—and that also in the later decades of life women are more often affected than are men. In this series the women outnumbered the men exactly 4 to 1.

Pregnancy appears to play some part in the development of gall-stones. Of the 76 women in this group, 60 had borne children. The average number of children per woman was 4.7. In several of these cases the first symptom of gall-bladder disease appeared soon after the birth of the first child.

Infections, such as dental abscesses, tonsillitis, scarlet or rheumatic fever, appendicitis, malaria, furunculosis, et cetera, occurred in the histories of 87.3% of cases. Golob<sup>10</sup> remarks that "typhoid to cholecystitis is like scarlet fever to nephritis". In these cases of gall-stones, however, typhoid fever played a very minor predisposing rôle. Only 7 patients had ever suffered from this infection.

The absence of typhoid as a forerunner of gall-stones in the present series of cases may, perhaps, be accounted for by the fact that it is now a much less frequent disease than formerly. Owing to inoculation and improved sanitation, typhoid is now of rare occurrence as compared with 25 years ago. Naturally, therefore, it would not often appear in the medical history of a middle aged patient to-day. In view of these considerations and the supposed importance of typhoid fever as a cause of gall-stones, it would be of interest to know whether cholelithiasis was more common 25 years ago than now. Has the prevention of typhoid fever cut down the incidence of gall-stones?

#### DURATION OF SYMPTOMS

The length of time which these patients had suffered from symptoms referable to the gall-bladder varied from 18 hours to 35 years. The average time was 5.2 years, with attacks of colic occurring on the average of once every 3 months.

#### TWO GROUPS OF SIGNS AND SYMPTOMS

Elliott and Nadler<sup>11</sup> suggest that one may divide the signs and symptoms of gall-bladder disease into two groups, namely, suggestive and characteristic. The first group comprises those symptoms arising from irritation of the gastro-intestinal tract, such as nausea, vomiting, gaseous eructations and epigastric discomfort. The second, or characteristic group, consists of colic and jaundice—to which I should like to add local spasm, tenderness and mass.

#### TWO TYPES OF ONSET

As Billings<sup>12</sup> remarks, the typical course of gall-bladder disease "consists of dyspepsia of several years duration, followed eventually by a sudden onset of colic brought about by the

passage or lodgement of a stone or by acute inflammation". There is another type of case, however, in which the order of appearance of these symptoms is reversed. Here the patient has never had any gastro-intestinal symptoms. His first warning of gall-stone trouble is a sudden attack of colic, often accompanied by nausea and vomiting and followed by an indefinite period of gaseous indigestion.

Jaundice which *follows* an attack of colic indicates the presence of gall-stones, as pointed out by Murphy many years ago. Jones<sup>13</sup> draws attention to these attacks of gall-bladder pain which recur with increasing frequency and severity. He finds that in such cases gall-stones are usually present.

#### DIGESTIVE DISTURBANCES

Among the "inaugural symptoms" of gall-bladder disease Moynihan (quoted by Hurst<sup>3</sup>) mentions "intractable indigestion". When one realizes that in cases of long standing gall-bladder disease—the cases where stones are more frequently found—not only the gall-bladder but also the liver, stomach, pancreas and appendix often are involved, then it appears evident that symptoms may be misleading. Indigestion may be not only "intractable" but may present a multitude of forms.

Gaseous eructations, which often had been present for many years, occurred in 90% of these cases. Nausea, usually accompanied by vomiting, was reported by 95.7% of patients, and 71.4% of the histories revealed the presence of constipation. Diarrhea was recorded 7 times.

#### RELATION OF FOOD TO SYMPTOMS

Gall-stone colic bears no such definite relation to food as does the pain of gastric or duodenal ulcer. The patient suffering from gall-stones often finds, however, that attention to diet is of great importance. Certain foods are usually well handled, whereas others will always give trouble. Among those foods which cause distress, patients most frequently mention fat, fried, "greasy", "rich" and sweet foods, meat—especially pork—cabbage, turnip, beans and bananas. Bland foods, on the other hand, give the least trouble. Bread and



milk are most frequently mentioned as being easily digested. Crackers, toast, cereal and chicken also find favor with these patients.

#### NUTRITIONAL IMBALANCE

Everyone knows that the patient with gall-bladder disease is frequently overweight. This rule held good for 70 of these 95 cases. The other 25 patients were either of normal weight or were undernourished. This latter condition often accompanied a badly infected gall-bladder. Fever was usually present in this type of case and the patient often gave a history of progressive loss of weight over a period of months or years. Even in the cases of obesity, when the digestive disturbances had been severe, the patients frequently volunteered the information that they had lost weight recently.

#### FEVER

The temperature was above normal in 80% while chills or sweating, either with or without fever, were recorded in 62% of cases. Only 7 of these gall-bladders revealed the presence of acute inflammation. Charcot's syndrome of pain, chills, fever and jaundice appeared in the history of 12 out of 14 cases of stone in the common duct. In 1 of these 14 cases there was no history of fever.

#### JAUNDICE

Jaundice, one of the characteristic signs of gall-stones, develops in about 50% of cases. Freedman and Straus<sup>16</sup> quote Kehr as saying that 51% of gall-stone cases show jaundice at some time. Sherren<sup>17</sup> found jaundice present in 69% of 113 cases. Hartman<sup>18</sup> found a history of jaundice in 31.74% of 652 cases of gall-stones. In my series jaundice was either present at time of examination or was elicited in the history of 61.1% of cases.

In all the 14 cases of stone in the common duct, jaundice was present, together with a history of clay colored stools and extremely dark urine. Deaver (quoted by Moynihan<sup>19</sup>) and Blalock<sup>20</sup> each found jaundice present in 80% of cases of stone in the common duct.

#### GASTRO-INTESTINAL BLEEDING

Bleeding from the gastro-intestinal tract

sometimes occurs in the presence of gall-stones. Two of these 95 cases gave a history of having vomited blood on one occasion. No gastric or duodenal ulcer was found at operation. Frick and Ireland<sup>14</sup>, Judd, Florsheim and Woolsey (these last 3 quoted by Frick and Ireland<sup>14</sup>), all mention gastro-intestinal hemorrhage appearing in cholecystic disease. Fisher and Snell<sup>15</sup> found gastro-intestinal bleeding in 7% of cases of gall-bladder disease.

#### PAIN

The typical pain of gall-stone colic is sharp and agonizing in character. It is situated most frequently in the right upper quadrant of the abdomen, and tends to radiate to the interscapular region; 48 out of 95 patients spoke of this pain as "sharp", "stabbing" or "cutting" in nature. Other descriptive terms volunteered by patients were "cramp", "colic", "agonizing", "pressure", "dull", "ache", "crawling", "burning", "heavy", "distress", "sickening", "penetrating", "gripping", "sticking", "heartburn", "dragging", "bursting", "boring", "gnawing", "tearing" and "resembling labor pains".

Golob<sup>10</sup> quotes Cabot as saying that gall-stone pains are apt to occur at night. In this series of cases 27% gave a history of pain starting at night. In 32% of cases the pain came on in the daytime. For the remaining 42% the time of day or night seemed to bear no relation to the pain; the attacks occurred at any hour.

In 86% of cases the pain was severe enough to incapacitate the patients. A few were able to obtain relief by means of hot applications, and others by means of vomiting; 58 persons, however, had required morphia.

The location of the pain in 60% of cases was in the right, upper quadrant, either with or without associated epigastric pain. Radiation of pain was directed most often to the interscapular region. The next most frequent site was the right scapula. The several regions where the initial pain occurred, as well as the parts of the body to which it radiated, appear in tabular form below.

Region of Initial Pain	Number of Cases
Right upper quadrant .....	35
Right upper quadrant and epigastrium..	24
Epigastrium .....	21
Left upper quadrant and epigastrium....	5
Left upper quadrant.....	3
Lumbar region of back.....	3
Lumbar and right upper quadrant.....	1
General abdomen .....	1
No pain .....	2
Total	95
Site to which Pain Radiated	
Interscapular region .....	36
Right scapula .....	16
Right shoulder .....	10
No radiation .....	8
Left shoulder .....	4
Entire abdomen .....	4
Epigastrium .....	3
Right upper arm .....	2
Right thigh .....	2
Lumbar region of back .....	2
Left upper quadrant .....	2
Behind sternum .....	2
Left chest .....	2
Umbilicus .....	1
Right testicle .....	1
Total	95

As a point in differential diagnosis Morley<sup>21</sup> draws attention to the fact that whereas pain referred to the right shoulder is seldom present in gall-stone colic, it is seldom absent in cases of perforated gastric or duodenal ulcer.

Buizard<sup>22</sup> believes that right sided lumbar pain 2 fingers' breadth above the iliac crest is a frequent sign of gall-bladder disease. This pain occurred in only 3 of the cases here presented. More or less definite relation between pain and taking of food existed in 36 cases. This relationship, however, was seldom as striking or as constant as that observed in gastric or duodenal ulcer. With these patients the pain usually followed within the first half hour after meals. Patients often described the pain as a feeling of "distress" or "fullness". On few occasions was there any definite connection between the taking of food and the onset of typical gall-stone colic.

#### LOCAL SIGNS

A palpable gall-bladder is a valuable sign when found. One can seldom depend upon its presence, however, for making a diagnosis. In the series under consideration it appeared in only 29.4% of cases. Local muscular spasm was present at time of examination in 68.4% of patients. The frequency of this sign is

probably greater when gall-stones are present than when they are absent. Blalock<sup>20</sup> was able to demonstrate local muscular spasm in only 44% of cases of "biliary tract disease". Local tenderness on palpation and a history of residual soreness following previous attacks of pain each were elicited in 92.6% of patients. As in the case of local muscular spasm, this latter sign of residual soreness is undoubtedly more often found with gall-stones than with simple cholecystitis. Phillips<sup>23</sup> reports the finding of residual soreness in 30 to 40% of cases with "gall-bladder disease". Careful observation will probably show that a palpable gall-bladder and local tenderness are found more frequently when stones are present than when they are not.

#### SUMMARY

Cholelithiasis probably develops earlier in life than has formerly been supposed. Especially is this the case in women. Patients with gall-stones often suffer for decades from gastro-intestinal troubles without an accurate diagnosis being made. As these people approach middle life the characteristic pain of gall-stones, or perhaps the appearance of jaundice, may be the first symptom to convince the doctor that the gall-bladder is at fault. When stones are present these attacks of colic are apt to increase in frequency and severity until the patient finally seeks the surgeon for relief. Occasionally, this order of appearance of symptoms is reversed, in which case a sudden attack of knife-like pain in the right upper quadrant or the epigastrium ushers in a chain of digestive disturbances.

Although there seems to be no definite relation between the taking of food and the onset of gall-stone colic, nevertheless, food often does distress these patients. Coarse and stimulating foods will frequently set up gastro-intestinal disturbances; whereas bland foods, as a rule, cause no trouble.

Nutritional imbalance usually accompanies cholelithiasis. Although the majority of such patients are overweight, yet, many times they are thin and undernourished. Frequently there is a history of recent loss of weight, especially in those cases which present acute or subacute infection of the gall-bladder.



Jaundice probably occurs at some time during the course of at least 50% of gall-stone conditions. It nearly always develops when a stone lodges in the common duct. In such cases it will usually *follow* the attack of pain.

The most frequent location of initial gall-stone pain is in the right upper quadrant of the abdomen. The next most frequent site is the epigastrium. This pain radiates most often to the interscapular region.

Patients suffering from cholelithiasis are usually constipated. They occasionally give a history of constipation alternating with diarrhea. Such cases usually present an extensive infection of the gall-bladder.

The signs of local spasm, mass, tenderness and residual soreness, characteristic of gall-bladder disease, occur more often when stones are present than when they are absent.

#### CONCLUSIONS

- (1) Women are prone to develop gall-stones at an earlier age than men.
- (2) Women suffer from gall-stones more frequently than do men.
- (3) Pregnancy appears to play some part in the development of gall-stones, but typhoid fever seems today to be of little etiologic importance.
- (4) A bland diet such as bread and milk, crackers, toast and cereals is most easily tolerated by patients suffering from gall-stones.
- (5) The onset of gall-stone colic is not influenced by the hour of day or night; it occurs at any time.
- (6) Jaundice may be reasonably expected in 50% of all gall-stone cases, and in 80% of cases with stone in the common duct.

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#### "DIAGNOSTIC" OR "CLINICAL" LABORATORIES AND THEIR STANDARDIZATION

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The history of medicine is a history of progress; of continued inquiry as to the causes of disease; of perpetual search for the elaboration and perfection of more effective methods of diagnosis and treatment.

The honest practice of modern medicine by the intelligent and conscientious physician in the light of advance made in medical and allied sciences is impossible without the utilization of many and varied means now available

for accumulation of data through the analysis of which a diagnosis is made possible. Indeed, there are times when in the absence of such information a diagnosis is not possible and treatment, therefore, of necessity purely haphazard, empirical, and symptomatic, and, if curative, only so by the favor of the gods.

While it is admittedly possible to examine the chest without a stethoscope, the heart without the electrocardiograph, to guess at the blood pressure, or to venture a diagnosis of anemia without the microscope or the counting chamber, diagnosis is more certain and the means whereby it is accomplished and proved more refined, delicate and reliable when fortified by the use of methods of precision. It requires but a minimum of professional skill to suspect tuberculosis in its terminal stages, or to recognize a developed eclampsia; far truer to his trust and more helpful to his patient is the physician who, through the utilization of modern methods, detects tuberculosis in its incipency, or the premonitory warnings of the toxemia of pregnancy, for one of the most important functions of the physician is the protection of the patient from preventable disease and the warding off of avoidable complications. Often the information necessary for the attainment of these vital achievements is brought to light through the use of laboratory methods, many times it is obtainable in no other way with certitude.

Laboratory methods, and all that they include and should imply in the way of skill in their application and acumen in their interpretation are, therefore, an integral part and essential feature of modern methods of diagnosis, treatment, and prophylaxis of disease and it is hence inevitable that where there are physicians there must and should be laboratories and clinical pathologists to direct them. It must, however, be admitted that the resources of the clinical laboratory are neither always wisely used nor in such fashion as to develop their fullest practical clinical value. While, in the light of modern teaching this may be productive of some wonder, there is still some degree of explanation possible.

In the early days of laboratory development

when laboratory studies were largely bacteriologic studies; when specific, etiologic bacteria were proclaimed in rapid succession; in the later periods, when immunologic studies developed methods of greater or less precision and specificity in the diagnosis of varied conditions, a conception of the laboratory as a well-nigh infallible means of rapid diagnosis per se insidiously developed, fostered more by a subconscious desire that it should be so rather than by design or intent. Once again the wish was father to the thought. Laboratory examinations were too often thought of as tests for certain diseases rather than as methods for the estimation of functional efficiency with disturbances of which the manifestations of disease are inseparably associated, and, unfortunately, the idea still persists to an extent solely dependent upon and related to the knowledge and training of the physician.

Those well-informed are cognizant and appreciative that, as with all findings, it is the significance which is important; it is not the test but its *interpretation* as applied to the particular case which is of value. Some few, however, are prone to attribute undue importance to the test itself as something aside and apart from all the other features of the case; to attribute to the positive reaction a definitive significance as indicative of a particular pathologic entity, and, vice versa, to the negative reaction an equal significance as predicating the absence of the disease in question. Laboratory methods are simply means of determining the reaction of the patient to varied stimuli; the character and intensity of the reaction are largely determined by the individual ability of the patient to respond as well as by the efficiency of the method used to detect and measure the response. It is more correct and conducive to the proper use of laboratory procedures to regard them as merely one phase of the examination of the patient, as a specialized means of eliciting information for clinical interpretation and to recognize that clinical pathology is a specialized field of the practice of medicine rather than a collection of ready-made short-cuts to a diagnosis.



So rapid and so extensive have been the developments in medicine and the allied arts and sciences in the last few decades that the medical profession has realized, from time to time, the value and necessity of a concerted survey to determine how best to utilize the material at hand. From one such survey came the standardization of hospitals the benefits of which even those who may, perhaps, have looked upon the undertaking as visionary and impossible of practical achievement and its application difficult if not impossible, must now admit.

It would now seem advisable and at least worthy of consideration to support a similar survey for the purpose of establishing a comparable standardization of clinical laboratories, for the supply has not been equal to the demand and the consequence has been the development of conditions which clamor for correction. In the interest of the proper use of the laboratory and of the proper recognition of clinical pathology as a phase or branch of medical practice, it would seem advisable as well as more truly scientific to discourage the use of the term "diagnostic laboratory" and to substitute in its place "clinical laboratory", as more indicative of the true status of the laboratory and less liable to the perpetuation of erroneous conceptions.

Practically speaking, there are no pathognomonic laboratory procedures. The presence of diphtheria bacilli in a culture is not per se diagnostic of diphtheria; the individual may be a carrier only. It is only when considered in conjunction with the clinical history and physical findings that the positive culture is of diagnostic significance. Even greater is the necessity for the careful interpretation and correlation of negative findings.

Disregarding any discussion as to upon whose shoulders shall rest the responsibility for the interpretation of laboratory findings, it can be admitted that, so varied and so specialized have the laboratory procedures of today become that not infrequently it is the man behind the test from whose skill and experience its ultimate significance are best derived. The laboratory and the clinical pathologist are often forced without their seek-

ing or even cognizance to assume grave responsibilities when their reports are taken as indicating varied diagnoses connoting varied methods of treatment, at times with grave sequels, the degree to which this is true being in direct inverse proportion to the training and skill of him who makes demands of them. It is quite true that many of the purely technical and manipulative features of laboratory methods may be safely relegated to the hands of technicians under competent supervision, but, after all, no matter how expert or skilled, their knowledge and training is entirely technical; no matter how experienced the surgical nurse, she is not and never will be the surgeon, nor can the technician ever become the clinical pathologist merely by metamorphosis. The question is more than a quibbling over terms but daily becomes a matter of greater moment to both physician and patient.

As a corollary to the increasing value of and necessity for the use of laboratory methods of examination has come a multiplication of laboratories until even the chain-store idea has been applied. In spite of the fact that the ability of the surgeon is not judged solely by the multiplicity of his instruments, nor that of the internist estimated in ratio to the extent and number of his offices, the laboratory is too often thought of solely in terms of equipment. Many of the so-called "commercial" laboratories owe much of their reputation to a specious display of glittering apparatus whose window-dressing value, one may be sure, has not been overlooked in their acquisition; to loud, blatant, and persistent claims to superlative facilities and boastful reiterations of all-inclusive excellence; to much of the same sort of pompous display and bombastic advertising which characterizes the pseudoscientific vociferations of the "old specialist in the acute and chronic diseases of men, women, and children", the cultist, and the "patent medicine" man. Behind the pamphlets, the "handy charts" of tabulated "diagnostic tests"; behind the glass-topped tables and the polished armamentarium; ready and prepared with a "prompt, reliable" and sure-fire test for whatever ails you, one finds—merely a technician capitalizing the need of

the patient and—must it be said—the carelessness of the physician for whom laboratories are laboratories. Not necessarily is the technician a good technician well-grounded or extensively trained—always, however, there will be well-developed commercial sense and a willingness to capitalize and extend without warrant the true functions of the laboratory and to assume those of the clinical pathologist.

Just as the surgeon must have his assistants and the internist his office nurse, so the clinical pathologist must have his technicians but many times the “technicians” of the strictly commercial laboratories are what are euphoniously termed “helpers”; untrained, persons willing to work cheaply, superficially taught in a few weeks rule of thumb methods and short-cuts, and who come and go as cheaper substitutes apply.

It may be asked why such laboratories—and they exist as any one may ascertain—receive any measure of professional support. The answer involves many factors. In some degree it comes from those who carefully select their hospital or their consultant but accept without question whatever fate sends as a laboratory; carelessness in this respect furnished its quota of specimens for examination. Some small number of the profession appear to be impressed by display and the constant thunder of the tom-tom; others seem intrigued by “discounts” to stockholders, cut-rates, or other indirect methods of fee-splitting and many of the laboratories of this sort are a Mecca for irregular practitioners, cultists, and the lower strata of the medical riff-raff who strut through the pages of the Sunday supplements—these laboratories accept as “doctors” all who accompany the claim with the laboratory fee, just as their heads seek the title for themselves whenever possible.

Were it not for the aftermath paid for by the credulous or unsuspecting patient, the situation would be absurd; as it is, it is fast becoming a nuisance to the conscientious physician and a stench in the nostrils of the self-respecting clinical pathologist.

The remedy is obvious and, sooner or later, must be applied: the survey, standardization, and certification of clinical laboratories cer-

tainly at least in so far as regards their relation to communicable diseases and the public health.

The practice of clinical pathology is the practice of a specialized branch of medicine just as is the practice of obstetrics or otolaryngology or whatnot. The clinical pathologist is, in effect, and more and more in practice, a consultant mainly in reference to diagnostic problems but often, as well, in regard to treatment and the measurement of its results—and especially is this true of the newer immunologic methods at hand and in process of development.

The clinical laboratory, therefore, should be under the direct supervision and control of the clinical pathologist who should be entirely responsible for all its work—and a clinical pathologist has been clearly defined as a graduate in medicine with a minimum of 3 years special training and actual experience.

Standardization of clinical laboratories need not necessarily be a protracted or difficult procedure. The first step is the general recognition of the necessity followed by its undertaking by some official body.

Perhaps a preliminary survey could be undertaken by state health departments. It should include: (a) Determination of the actual controlling heads and their qualifications; preferably they should be clinical pathologists and not laymen interested solely in the revenue derived; (b) the qualifications of the clinical pathologists; (c) the training and experience of the technical personnel; (d) the methods and report forms used; (e) the material equipment; (f) the character and general reputation of the laboratory as regards its integrity and adherence to ethical principles and the avoidance of connubiality with cults and the like; the character of its patrons; type of advertising, and, if a corporation, the character of the stockholders.

Laboratories satisfactorily fulfilling the requirements could be given a certificate good for one year and based mainly upon the training, ability, and experience of the director. A list of such certified laboratories should then be published in official channels and disgraceful, unethical, or incompetent work



should mean a withdrawal of the certificate and publication of this fact. The physician will then be able to choose knowingly and deliberately by which type of laboratory and clinical pathologist he and his patient shall be served. Standardization of laboratories has already been suggested and inaugurated; all that is now needed is the interest and active support of the profession at large through its general and special societies.

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## A NEW MILK REFORM MOVEMENT NEEDED

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Neither evolution nor devolution has apparently anything to do with "stasis". As a matter of fact, we know that energy and matter undergo continual change. Perhaps the chemists of the future will convert corn cobs and oat-straw into a cow's-milk-substitute; or else we may import the African race as foster mothers, as their women are long-time and heavy milk producers. Until something is done beyond what is now being done in connection with milk infections, the public supplies of milk, cream and butter are not good enough.

It is not pleasant to step ahead of and see beyond one's fellow beings in any line of effort; but a sense of honorable duty compels me to point out what should be done to secure greater sanitary certainty as well as edible improvement in milk, cream and butter. The advanced information that I now have to present at this time, commenced to grow about 40 years ago, and not long after the evolution of the compound microscope, when medicine commenced to be a science. Lord Lister was born about 100 years ago, but it is only about 50 years ago that he began his struggle to secure the application of antisepsis in surgery. How many bottle fed babies died before that time because the profession did not know that the death of and consequent decomposition of bacteria, which are pure proteins, liberated protein-split poisons that even

in moderate quantities are now known to be virulent poisons, we cannot say. Apparently, many millions of babies were poisoned to death through repeated doses of bacteria-produced poisons that were and are today apart from the direct action of bacteria in the alimentary tract. It was only in 1913, when Vaughan published his book on "Protein Split Products in Relation to Immunity and Disease", that some long existing questions in my mind became answered. When quite a boy I was interested in having seen the gradual depressing poisoning of a baby nephew of mine who died of marasmus. That child had the very best medical attendants of that day, but no one of them knew why that baby died. Yet, most of them were instrumental in spreading the work of infections that killed babies' mothers. The world has made progress since then, and since the day of the swill-milk and stump-tail-cow era; and made a *large* step in advance, when Dr. Coit started the Clean Milk Movement; but the fact remains that no milk today is as good as it should be, and this notwithstanding that the National Government is gradually inducing milk producers to have their herds tested, and also, that pasteurization has become a general practice in the larger cities of the world.

But here is the situation: Nine-tenths or more of all of the milk that is produced, is highly infected with various types of bacteria, including the putrefactive types and acid forming types; and all cow's milk is contaminated with putrefactive gases that originate in the glands of the warm cow's hide, contaminate the cow's enviroing atmosphere, are inbreathed by the cows, and are transfused to their milk during the production of the milk in the udder, and are never entirely eliminated. In the large certified milk herds, the atmosphere surrounding those plants is highly impregnated with such gaseous contaminations, and as yet no method of thoroughly eliminating those gases has been adopted. All sorts of specific infections get in milk no matter how carefully produced. So far as I know, no general supply of milk is entirely pasteurized before incubation of the primary infections has occurred in parts of the milk.

When the delay in pasteurization extends over several days, the incubation is large, and when pasteurization does occur, protein-split decomposition poisons are produced. Furthermore, the metabolic excretions of bacterial incubations remain in the milk. The temperatures to which milk, cream and butter are exposed between the time of producing of the milk and the time of their general consumption, is inadequate to prevent fermentation in any dairy product.

If the large milk companies know these facts, they are doing nothing to meet and overcome the situation, and yet it is simple and easy to do the right thing. I am wondering if it is left for *me* to have to point out how and why. I have solved all these problems practically at my dairy farm during the past 15 years, and apparently the only practical way to educate the public to know what constitutes high sanitary character in dairy products is through the acquisition of protecting patents covering apparatus and methods, and to place those monopolies in the hands of selected dealers whose monopoly would enable them to educate the public. The United States Bureau of Animal Industry has not done it, nor the local state Boards of Health, nor City Boards. I asked the Rockefeller Foundation some years ago to do it, but they said it involved commercialism, which their charter did not allow. If I live long enough, and no one else will do it, I will try to do it; but I want the moral coöperation and assent of the medical profession in carrying out that duty.

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## PROSTATIC HYPERTROPHY

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Newark, N. J.

(Read before the Clinical Society of the Newark  
Beth Israel Hospital, March 2, 1927.)

When we speak of prostatic hypertrophy, we assume in our minds the benign type of adenoma, but we must not forget the malignant type, the most common being the adenocarcinoma which comprises 15% of malignant glandular lesions. The benign hypertrophy

consists pathologically of two distinct types, the adenomatous and the inflammatory or so-called prostatitis. The former produces symptoms of mechanical obstruction, whereas the latter is an inflammatory process of the prostate and associated sexual structures which usually subsides after physical and medicinal treatment.

The benign is the type of greatest surgical concern. One must remember that the moderate hypertrophy, palpable by rectum, apparently not large enough to give obstruction, may be the severe obstructive intravesical type discerned only by the cystoscopic observation. Cystoscopy and its allied methods of examination known as the preoperative work-up has brought the diagnosis and prognosis of this surgical lesion to an exact science.

Let me enumerate the measures we have adopted and standardized in our urologic work-up: (1) Cystoscopy; (2) blood chemistry; (3) kidney function, better known as the P S P test; (4) proper choice of anesthesia; (5) urinalysis; (6) discrimination in selection of one of 3 types of operation—suprapubic, perineal or the Caulk method; (7) blood pressure measurement.

I am not going to discuss each one in detail for I was designated a limited amount of time in the presentation of this paper, so permit me to tell you of one or two of our cases which will almost visualize the entire work-up.

Case 1. L. S., 67 years of age, was admitted to our service Nov. 19, 1926, with a negative past history except that he had angina pectoris. He presented the usual symptomatology and clinical picture of an obstructive adenoma. Cystoscopy showed a good bladder capacity, fair residual, trabeculated bladder, large intravesical prostatic median bar and a *diverticulum*. A cystogram revealed the diverticulum very beautifully, in contrast to the bladder proper. Blood chemistry was normal. Kidney function showed 33%, which was considered good. Urinalysis gave the findings of a chronic interstitial type of Bright's disease.

We knew he was a poor suprapubic risk for removal of a vesical diverticulum is a hazardous procedure in this type of case because of the angina pectoris.



A perineal route could not be entertained because the diverticulum could not be thus excised and the urinary symptomatology and pathology would not be changed, leaving him in the same distressing condition as prior to admission.

We did consider doing a Caulk operation as a palliative measure but yet he would not be relieved, because of the diverticulum pathology, so we decided to leave him alone.

It is interesting to note that the bladder in this case was well compensated in spite of the lesser degree obstruction by the median bar at the vesical neck.

Allow me to say a few words about the cystogram in this case. I inserted a ureteral catheter into the diverticulum and x-rayed the bladder, showing the catheter curled in this extraneous pouch. I then injected the bladder with a 15% sodium iodide solution after removing the catheter and took a radiograph. Another observation was made with the sodium iodide removed from bladder, leaving part of medium in diverticulum and injecting the bladder with a 3% sodium iodide solution to show contrast between bladder and diverticulum.

Recently, before a distinguished urologic assemblage of the American Medical Association, our head of the service, Dr. O'Crowley, advocated that cystograms should be done in the lateral aspect in addition to the antero-posterior, which suggestion was so well entertained that it is now an accepted routine by radiologists to take both postures in cystography.

The prostate is primarily a sex gland and is apparently dependable on testicular function, as proven by atrophy of the gland after bilateral castration. We know that most men over 50 years of age have enlargement of the prostate but no symptoms and in not more than 50% of those in which symptoms are present are there true indications for surgical interference. With what complaints are we commonly confronted by a prostatic victim? (1) Frequency of urination during the day. (2) Nocturia or night frequency. (3) Diminution in stream, both size and force. (4) Pain of urination. (5) Dribbling at the

end of urination. (6) Hematuria. (7) Acute retention. (8) Incontinence of urine.

What makes the case operative? A moderately palpable adenoma by rectal examination or an intravesical type as observed by the cystoscope; large residual urine and a normal blood urea and good urinalysis.

As to management of prostatic hypertrophy preliminary to operation, most such patients have had a chronic retention for years, some a catheter life with resultant renal deterioration. These cases are usually of the uremic tendency, or potentially so, and by draining them through a catheter, or what is known as the first step operation and not instituting a prostatic second step till proven that the kidneys are functionally well and the general condition of risk is good, reduced the hazard to a minimum and the recovery to a maximum. When you find a 20% P S P dye in 2 hours, and if more than 50 mg. urea for each 100 c.c. blood is retained, leave him alone.

You can readily see that in the evolution of prostatic surgery, the second step has fulfilled a distinct purpose in emphasizing that preliminary drainage of the bladder is paramount in the successful management of patients with an obstructive prostate and resultant renal insufficiency.

The first deliberate prostatectomy was done by Billroth, in 1867, by the perineal route. The first to execute the suprapubic method was Fuller, in 1894. The former in the early days of prostatectomy was the more popular because of lower mortality. This method is even now strongly advocated by Young and his followers, for they in some way or other, probably due to exceptionally acquired skill, have obviated the urinary incontinence and urethrorectal fistula, complications which commonly follow this method. The suprapubic transvesical route however is the more feasible and advantageous, for you do not jeopardize the external sphincter in your approach and it affords the opportunity to deal with associated pathology of the bladder such as stone or diverticulum when present. However, from the standpoint of mortality rate, there is no choice between the perineal and the suprapubic operations since the advent of

reliable renal functional tests and the blood urea estimation. In collected statistics of cases up to date, 7565 operations (suprapubic and perineal) by Young, Freyer and Liebig, note the mortality rate: Young, 3.4%; Freyer, 5.5%; Liebig, 7.4%.

A third method of procedure, known as the "Caulk Punch" operation, was instituted in 1920 by Dr. Caulk of St. Louis. This is done per urethra with infiltration anesthesia of the vesicular orifice. You actually tunnel through the obstructive body and create an aperture for urinary drainage. Caulk recently reports no mortality in his cases and states that 30% or more of obstructions can be relieved by this method, thereby reducing the number of prostatectomies and lowering the mortality rate of prostatic surgery. Young reports 2% mortality in a series of 355 median bar cases. The procedure is simple and such complications as pain, hemorrhage, slough and general reaction are not known to this method. The ideal cases for the Caulk procedure are: (1) Vesical neck bars and contractures. (2) Prostatic cancer, as a palliative measure.

The following is a case with which we were confronted in our series and in which we did a Caulk following the first step because we did not find enough prostatic tissue for a second step and yet his pathology was due to a sclerotic vesical neck and median bar, which was ideal for a Caulk. Another reason for the latter choice of procedure was his poor physical condition, due to an arteriosclerosis which was very marked, and a bilateral inguinal hernia.

Case 2. M. M., aged 69, was admitted August 11, 1926, with acute retention. He gave the classical history of an obstructive type of adenoma. He had acute retention for 6 days prior to admission and had been subjected to constant catheterization. No cystoscopy was done because of poor physical condition. Blood chemistry was normal. Kidney function good. Urinalysis showed pus, red cells and marked albumen. Seventeen days after admission a first step operation was done. His bladder was irrigated daily and his physical condition was enhanced, as well as his kidney functional, and a good resistance

established by waiting that period of time before entertaining the first step. Another wait of 17 days after the first step permitted a Caulk to be done under spinal, with a subsequent good recovery. He began to void per urethra after 11 days and was discharged October 3, 1926, fully recovered.

Choice of the one or two step operation is largely a matter of personal preference. Some spirited adherents of the one step claim that it does not affect the mortality rate nor end result. We know this, that to use the one stage routinely is impossible, nor is it necessary to do the second stage in all cases. The one stage is conducted under the eye. Mayo reports 1360 suprapubic prostatectomies between 1913-1923, 76% having been done in one stage and 24% in two steps, with 68 deaths, giving a 5% mortality rate. Uremia was the most common cause of fatality.

It is my view, and I am sure of the coinciding sentiment of the head of our service, that we are not very enthusiastic about the one stage procedure and that we will continue to employ the two step in practically all cases.

I would do the service a grave injustice if I failed to bring to your attention a case which in my judgment stands out preëminently as an example to prove that we should never fail to consult the metabolist when there is a sudden collapse of physical energy and resistance bringing on gross complications.

Case 3. G. C. was admitted to the hospital May 20, 1926, for a prostatectomy. He was fairly emaciated but in good physical condition. A first step was done 4 days later and a second step on June 4, 1926. Eleven days later he became suddenly ill with a temperature 105°, rapid pulse and was mentally and physically exhausted. Blood picture was negative, except high white count and 86% polymorphonuclears. Several blood cultures were negative. Urine was loaded full of pus. Right metacarpo-phalangeal joint became swollen, so did the right elbow. Pulmonary signs were negative. We decided he had developed a bilateral pyelonephritis with pyemia.

On June 21, he began to hiccough and this continued for 9 days. His bladder was irrigated in the usual manner and at the sugges-



tion of Dr. O'Crowley, *Bacillus bulgaricus* solution was injected into the bladder twice daily over a protracted period of time, which I believe began to clear up his primary and major vesical infection.

He certainly was moribund and as a last heroic stand I began to lavage his stomach daily until the hiccough spasm seemed to be checked. Still, it appeared as if all our efforts would prove fruitless and it certainly looked as if it was a matter of hours. Again by the suggestion of our chief, we called in the metabolist who immediately put him on a caloric diet which he seemed to retain. This was changed almost every 48 hours and a transformation took place. The patient's tissues, completely impoverished by the virulent infection, were brought back to vitality by certain stimulating foods. He ran a temperature till August first. Developed an ischio-rectal abscess July 21, which I incised. Left the hospital August 16. Right elbow slightly angulated by ankylosis. I saw him 2 months ago; arm fully recovered, enjoying perfect health and working as before.

Now I come to a subject which I believe is of rather grave concern to the urologist and that is—Why is it that in some of our cases, following prostatectomy, we get poor functional results? Those patients return to us with the same complaint and sometimes even in greater distress than before extirpation. We may attempt to enumerate the causes of this unfortunate condition, in the following manner:

(1) Vesical diverticulae. Failure to excise the retentive type of diverticulum which leaves them with the same pathologic symptomatology. This is due either to failure of recognition by cystoscopy, or failure to do the preoperative cystoscopic observation, or gross carelessness. The nonretentive type rarely require excision.

(2) Nerve bladder (cord bladder), when associated with enlargement of the prostate, may be the cause of poor functional results. It is difficult in many of these cases to determine how much of the retention is due to hypertrophy, especially if the gland is only

moderately enlarged, and how much is due to faulty innervation. We know that some of these cases are not benefited by prostatectomy and surgical intervention is a real problem. I am of the opinion that if a moderate prostate prevails with urinary pathology and symptoms, we should have the neurologist rule out any cord lesion or sensory changes. More so does this apply to cases with functional disturbances after prostatectomy.

(3) Fibrosis of the internal sphincter.

(4) A prostatic tag left after prostatectomy and attached to the internal urethral orifice.

(5) A bar produced by the trigone crossing the internal urethral orifice at a high level. This can be corrected by a V-shaped excision of the bladder wall.

(6) Urethral polyp developing in the prostatic bed. This can be removed by diathermy.

(7) Cystitis.

(8) Infection of the seminal vesicles, commonly associated with prostatic hypertrophy, as is evidenced by the frequency of epididymitis following operation a few days after or even several months later. It is interesting to note that in a series of Beer's cases 20% developed epididymitis and he believes it justifiable to do a bilateral vasectomy to prevent this complication. We had 2 cases in our series of epididymitis, one a week after and the other several months after.

(9) Vesical calculus in prostatic cavity or incrustation of prostatic bed.

(10) Incomplete removal of prostatic adenoma.

(11) Failure to recognize an associated malignancy in the lower segment with benign hypertrophy in the upper segment; hard nodules in the so-called surgical capsule of the gland palpated bimanually following enucleation.

The results following prostatectomy bear a direct relation to the length of time that retention and infection of the urinary tract have been present and the best results are obtained in cases done before a pyelonephritis develops.

## Case Report

### AN UNUSUAL CASE OF TRAUMATIC INCARCERATED HERNIA

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Compensation insurance has thrown an added burden upon the surgeon, as well as the medical profession at large, in that the physician is frequently called upon to determine whether or not the condition present is an aftermath or consequence of an injury received.

Hernia is, especially, one of the conditions in which decision is often a matter of difficulty and doubt and often, also, based upon an opinion which must, in turn, be based upon past experience. This case is recorded because of the fact that, under the recorded circumstances, the occurrence of an incarcerated hernia would, undoubtedly, be regarded by a majority of physicians as doubtful, to say the least.

M. L., aged 14, male, white, while riding a bicycle, was thrown to the ground after having been struck by an automobile. He was apparently not severely hurt and, because of the fact that it was a newly acquired bicycle, concealed the accident from his parents. The patient was attempting to pass between an automobile and the curb, and was thrown upon the curb without much force. He arose and, with the exception of slight pain in his right thigh and hip, felt that he was uninjured, and proceeded upon his way home unassisted. There was no prostration, no shock, nor any symptom of severe injury. The automobile did not strike the boy directly, and the injuries that he sustained were all due to his contact with the sidewalk and the pressure of the various parts of his bicycle upon him.

The past history revealed nothing abnormal. He had had no serious illnesses. He has been a student and, with the exception of some very light work, has led a rather quiet life. He has 2 sisters, 1 brother, and a father and mother, all living and well. There is no evidence of hernia in any of the family. The boy states that, prior to the accident, he had no abdominal distress whatsoever, and had not at any time seen or felt a lump in his abdomen.

Following the accident, the boy went home, but did not complain to his parents, for the reason above-mentioned. The accident occurred in the forenoon and, when time for the mid-day meal came, he attempted to eat lunch so that his mother would not become cognizant of the fact that he was having abdominal pain. The peristalsis produced by his attempt to eat caused an aggravation of the pain and produced vomiting. A physician was called, but was not informed that there had been any accident and, after a cursory examination, concluded that it was a simple gastro-intestinal disturbance. The pain persisted and gradually grew worse and that evening the physician was again called, at which time he discovered a mass in the left scrotum. I was then called in consultation, and the diagnosis of incarcerated hernia was made. An immediate operation was performed, at which time a knuckle of small intestine was found protruding through the external ring, with circulation greatly impaired. A modified Bassini operation was per-

formed, and the boy made an uninterrupted recovery.

The importance of this case lies in the fact that a normal, healthy, well-developed, adolescent boy can receive a traumatic hernia from apparently very slight increased pressure to his abdominal wall, even though there is previously no evidence of hernia in the family, and that the nature of the injury does not have to be serious enough to cause tearing or injuring of the structures in the region of the inguinal canal.

## Communication

(Exact copy of a letter recently received in the Compensation Bureau of the Department of Labor, at Trenton; pathetic, as well as amusing.)

Dear Sir

Just a few lines to Let use know that I received your Letter and want to know if I want to secure from the insurance to pay for my Limb. For heaven's sake I been about five months with crutches and know help from anywhere and have five in the family and five months rent in front of me and sick ones besides me I am compelled to do something for haven's sake. I can't get about the conditions I'm in you people know that by now The Longer I Lay the way I am in I don't seem to get any where So I got to do something Now If that insurance didn't keep there promise on account of me not taken there offer on a peg Leg to hurt me worse for me to enter the hospital again for the Lord's sake I think I had my share of it Now I am asking you people if that's the only way you people can help me out if that's the only way I would kindly ask you people if use would try fix me with about Two hundred dollars to cover all my expenses for Temporary and permanent Limb. I have already been measure by a man that wears one himself is about in the same condition has his off the same as I have mind off hoping to the Good Lord that I can be fix up once more the sooner I can rec'ev'd the money the quicker it will be for me for the days are getting Longer and the months are flieing by and the rent is do and my family need clothing Hoping to the good Lord after I am fix up once more that you people won't turn me down on getting something to do so I can make a fair Living for my family it might be hard for me to find something in the conditions I'am in So please try and help me out just soon as you people can send me the money the quicker I can get about

Please try get send out for I make agreements with this Company about a Limb for me

So try and make it as soon as possible so they can go head and make it for me

Hoping that I won't have any trouble for I think I got my share of every kind of trouble that can be issued Nevertheless the old saying is

"From the day you are born

"Til you ride in a hearse

There's nothing so bad

That it couldn't be worse"

Please try

and fix me up

as soon as

Possible



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## PEDIATRICS AND PERIODIC HEALTH EXAMINATIONS

In his paper on "Preventive Pediatrics", published in the August Journal, Dr. Howard Mason suggests a very practical application of our theories regarding health examinations, with special reference to the lives of children. His recommendations are applicable at the moment because summer vacations are ending, schools are reopening, and this is a month peculiarly appropriate for taking stock of the health of a host of children. Reviewing the statistics of small-pox, diphtheria and the exanthematous diseases, Mason points out that civilized communities are far from having fully profited from the knowledge of preventive medicine which has been for a long time at their command. To what extent is the medical profession responsible for this condition? Perhaps we may better express it by asking—to what extent is the physician obligated to actively engage in application of such public knowledge, forcing his clientèle to adopt the safety devices which he has long been recommending to their consideration? There is no question of legal obligation, but there may be one of moral duty. That the profession as a whole recognizes a duty to prevent disease is clearly evidenced in the health educational campaigns conducted by and at the expense of medical societies, and by the active participation of physicians everywhere in community efforts to abolish infectious diseases. At no stage of life's existence are disease preventive measures more important than in infancy and early childhood, and in no other field are these measures pro-

ductive of such magnificent returns for the time and money and labor invested.

The pediatrician, and here we employ the term to embrace the family physician engaged to look after the health of any child, need not fear criticism nor the charge of profit-seeking if he ventures to advise parents regarding matters of import to the child's health other than those for which he was specifically called. Indeed, the time is arriving when he may be more justly fearful of criticism for failing to offer such advice. The old time family doctor was the adviser in many things—social and legal as well as medical problems. He knew a great deal about things other than medicine; he knew very little about prevention of disease. We of today are relieved of many of his family relationships but our strictly professional responsibilities have increased tremendously; and incidentally we know a great deal more than he did about disease prevention. Whether or not it is a duty, may we not consider it a privilege to give more service than is required or asked for?

As regards the affections of infancy and childhood, and with reference to one special campaign—antidiphtheria—Mason very well says, "This brings the whole matter back to the family physician as he is in close touch with these small children". Before the school term opens, consider the children—school and preschool age—in your "families". Do any of them need vaccination, immunization, throat or eye examinations, or physical culture advice? Inculcate in them the habit of annual health examinations.

## Esthetics

### SCIENCE, ART, AND THE PATIENT

In the June issue we devoted the space ordinarily allotted to the department of Ethics, Esthetics and Economics to reproduction of a magazine article by Dr. Joseph Collins, because it seemed to carry a very timely message for all practicing physicians. This month we are fortunately able to present another, and equally important message upon the relationship of the physician to the patient. This very commendable article on the art of practice comes from the pen of Dr. George Draper, whose devotion to study in this field is well known to our readers, and again is copied, with permission, from *Harpers' Magazine*.

Inside each sick man is an exquisitely sensitive, frightened, quite individual, living organism; but round about him hangs a smoke screen, an overwhelming array of physical, chemical and psychical phenomena which fixes everyone's attention. The horrid aspect fills friends and family with awe and apprehension, the modern scientific doctor with interest and concern. This smoke screen is made of the signs and symptoms of disease, which arise from the clash of an unique example of humanity and some adverse environmental force. Yet these signs and symptoms bear the subtle stamp of the patient's personality. In just the same degree by which the quality of one man's laugh in health differs from that of another, does his manner of sneezing or feeling pain in sickness differ, or his method of resisting or failing to resist bacteria, or of dealing digestively with a Welsh rarebit after midnight. It is true, indeed, that what is one man's food is another's poison. And by the same token, the length and breadth of men's noses differ—there are brown eyes and blue eyes, and dark and light hair, and now and then red. We take all these latter characteristics for granted every day, and rarely note any association they may have with other peculiarities of their possessors. And, so you ask, what have all these things to do with sickness and science and doctors?

An old nurse was often heard to say about one of her charges, "Ann seems to be sickening for something." What she meant was that, knowing Ann in health—which is a state of good biologic adjustment with the universe—she had observed certain subtle changes in skin color, or eye light, or turn in direction of little lines about the mouth corners which experience had taught her faithful old soul to be the forerunner of the measles or scarlet fever. More than that she could not tell. Indeed, she might not be

able to describe what she actually saw. Her presentiment, unerringly accurate, was based on nothing more definite than her "hunch." And hunches are about the most volatile, imponderable circumstances we have to deal with. Yet if we admit that whatever knowledge we do gather of the world about us must pass the sensitive filter of our five senses, we admit that the physical or chemical agencies which impinge upon them are, so far as we know at present, the only spies employed by our personal intelligence service. And our senses gather a great deal of important, indeed, vital knowledge without building it into intellectual concepts. Response of this sort of unwitting collection of information is said to be "instinctive." The Indian skilled in woodcraft moves unerringly in the forest and "instinctively" knows or feels the presence of game or danger. The tenderfoot would sense no such awareness. The mariner feels the approaching fog or tempest and then turns to the barometer for corroboration. Yet neither Indian nor mariner could explain how or why he felt these things. Each would tell you he did not think about them; he "just felt them in his bones." So, too, the physician of ancient times developed an "instinctive" intuitive sensibility about people, whether sick or well. In his effort to comprehend disease he sought to know mankind, and thereby he developed an astonishing, unexplained astuteness of feeling for the qualities of different personalities. The artist turns this feeling into his portrait and often, quiet unconsciously, lays bare an attribute of which his intellect was completely ignorant. To lose this most uncanny power would be to destroy art. Without it the painter's canvas would display but measured replicas, the Indian would starve, the mariner be overwhelmed, and the doctor fail to find his patient behind the smoke screen.

The question, therefore, which the medical profession today faces is whether any living organism can successfully adjust itself to its environment and its fellow-creatures without the aid of that still unexplained "instinct" or "feeling" about things, whose highest and most useful expression is art. Yet intellectual man strives continually to abolish feeling. He attempts, by thinking, to substitute machine-made for hand-made, science for art. In the long run what will be the result of this tendency and, more especially, what has it already done, and what is it doing to the relationship of doctor and patient? The old French proverb, "*Il faut guérir le malade, pas la ma-*



ladie," states the physician's task succinctly. But in order to accomplish it he must be able to see, to sense, to comprehend the individual within the patient.

Man's greatest hope has ever been to know his brother through striving to penetrate that external mask behind which lies the unexplained mystery of personality. "What is he?" is the question about which all the efforts of artists and natural historians have clustered through the centuries. These two great schools eagerly searching to explain the enigma have approached the problem, according to their different casts of minds, from quite opposite pathways. The painters, sculptors, poets, and dramatists have said, "Here is man, and all his universal relationships, as we see and feel him. Though unexplained, perhaps, he is no doubt like this. We are quite sure, because of the strange resemblance he bears in appearance and behavior to the lower animals, that he shares some fundamental part with them in the cosmic plan. He may, indeed, include their origin and being in his own. And still we cannot fully understand that person standing over there". On the other hand, the anatomists, biologists, anthropologists, and psychologists say, "We know the length of his bones in millimeters, the amount of sugar in his blood, the distribution of chromosomes in his cells, and the scope of his mind. Furthermore, we can demonstrate muscle for muscle, nerve for nerve, that he has developed through a pyramid of other living forms, from the protoplasm of primeval oceans. And still we cannot fully understand that person standing over there."

Now, though both these enthusiastic and inquiring schools have a common objective, they have—because of different and perhaps somewhat antagonistic methods—deployed too widely from each other in the advancing search. The artist group has sought to feel, to sense, to see, to apprehend the man as a whole, as a finished expression of life. The naturalists, on the other hand, have analyzed man's elements, taken him to pieces, with the hope later of putting the parts together again. There is another army of workers, however, which stands apparently between the two. These are the physicians. Their interest has been to solve the problem of disease in order to relieve man's sufferings and, happily, to prolong his life. The success of this, their first concern, of course depends largely upon the depth and rightness of their insight, on the one hand, into the adverse influence of environment, and on the other, into the personalities of their patients.

The latter consideration is often of greater importance in treatment than the former. This is well shown by the case of a young German-American woman whose symptoms of dizziness, headache, and fatigue had not yielded to the medicines she had received. The failure was due to the fact that the disease had been treated, and not the patient. At the clinic she eyed the doctor askant, from beneath lowered brows, head turned partially away, with the doubting, frightened glance of an animal at bay. This look was the key to the problem of her symptoms, for it led, through a careful investigation of her personality, to the demonstration of a consuming fear of death with which she had lived silently for many years. As conference followed conference and the nature of her life-experiences and her reaction to them were unfolded before her, the doubting averted glance changed to a direct gaze, the lines in her face disappeared, and her symptoms vanished. In this case the patient was the sort whose reaction to the environmental influence of fear is highly sensitive and intense. And so, to reiterate, her disease was but the expression of a clash between a certain type of individual and an adverse force outside.

Thus, to the hand of the clinician is given the task of building a bridge, not between two differing objectives, but over the chasm which has grown up between the methods of art and science. Indeed, the doctor seems to have a special opportunity in this work, because disease and malformation are variations from average reaction and form. And it is well known that the study of variants is a gateway to knowledge of the norm. But here again a difficulty arises, for the norm itself is but a gross conception of the human mind, at least so far as organic, living forms are concerned. In the animal kingdom, without question, no two individuals, not even the members of a pair of identical twins, are absolutely similar. Morphologically, they may be nearly so, but in such instances it is common experience to observe in one of the pair a flash and energy of spirit quite absent in the other. If seen alone, this spirited one would give to the poet or painter a far different impression of individuality than would the other. To the physical anthropologist, on the other hand, the two would be sufficiently alike to be recorded in measurements as identical. From this it would appear that a well-balanced union of both the artist's and the scientist's point of view must be joined to guide the doctor's philosophy. Like a Colossus of Rhodes, the physician must

stand firmly, a foot on either base, and view the torrent of life's problems as it rushes between.

## II

Whether or not it will ever be possible to evaluate correctly the whole man is problematical. But at any rate the medical world is now passing through an epoch of reviving endeavor to know him in his entirety. Various words are being suggested to express the conception of total personality, and at the moment "constitution" is the commonest. This may or may not be the perfect word, but at least its present connotation is sufficiently established to justify its use until a better is found. There are likewise many different pathways from which the subject of personality, or constitution study is being approached. Indeed, it is perhaps just this fact of the number and variety of inadequate methods which leads certain observers to express doubt as to the solubility of the problem. One European student of the subject, writing of our inability to comprehend why under the same infection one person remains well, another is slightly ill, a third is severely ill, and a fourth dies, says we help ourselves with the word "constitution." "What is constitution?" he asks. "We do not know. We can only indicate its existence by means of circumscription and negative expressions. In just the same manner do we attempt to establish the nature of the intelligible ego, by means of circumscription and elimination. Just so with constitution; we shall never grasp its essence since this belongs to the essence of Life."

Despite this somewhat discouraging attitude, however, there can be little doubt that serious and enthusiastic efforts are being made to attack the problem of human constitution in relation to disease. Interest in the elusive subject doubtless owes its revival, at least in part, to a realization of the almost-forgotten fact that without a human subject disease cannot exist. At this point we can almost hear the voice of Claude Bernard: "*Matière vivante et conditions extérieures: la vie résulte constamment du rapport réciproque de ces deux facteurs*". But possibly to express such a truism may be held in these mechanistic days to be old-fashioned. Few can deny that in the past twenty or thirty years a large preponderance of medical research has been directed upon the external, or environmental, agencies of disease. Quite clearly the renewed activity in certain medical quarters in the investigation of man leads us to this question: Has the immense amount of capital

and effort which has been put into studies of the adverse environmental agencies yielded results which justify the almost complete lack of support, in medical schools and institutes of medical research, for study of the other essential disease-producing factor—the unique reactivity of a given individual? The study of those mysterious structures, the glands of internal secretion, has done much to help in the process of re-awakening medical interest in the reactive creature Man, but the exploitation of unsound glandular therapy and the habit of accepting hypotheses for foundation stones has to a considerable degree offset this constructive influence.

In an attempt to approach the subject of human constitution—which is best considered to be a state of individual reactivity—our effort at the Constitution Clinic of the Presbyterian Hospital in New York has been to view the individual as a complete organismal entity—no part effective without the whole, and the whole dependent upon the nicely co-ordinated activities of the parts. But it is just this conception of the individual which brings us face to face with the question of method. Should we envisage man as does the artist—complete, without analysis, through the process of unexplained perception and intuition, and by means of a sort of artistic training and observation? Or should we dissect and group his qualities, hoping by a process of correlations to accomplish what "all the king's horses and all the king's men" failed to accomplish for Humpty-Dumpty?

Not long ago a case was brought before the students in the clinic room; and it had been agreed that the usual manner of clinical presentation would not be adopted. Indeed, a patient unknown either to the instructor or to his class was called for. As the chair bearing a gray-blanketed woman's form rolled into the class room, the patient was requested not to say a word about her symptoms, and the chart containing the record of her case was turned face down upon the table.

"What do you see before you?" asked the instructor addressing the class. After a slight pause one of the students said, "A pale woman with blue eyes and dark hair." A sly smile crept over the patient's face at this and there was an ever so slight and mischievous twinkle in the blue eyes. Then followed questions and discussion designed to bring out other qualities of her personality. Among these it appeared that she had a quick and transitory temper. As soon as this was known the instructor queried of



the students, "Now where does she come from with her blue eyes and black hair, her humorous smile, and a readiness to fight at the drop of the hat—where is she from?"

"Ireland!" came in unison from the class.

In the ensuing half hour one characteristic after another of the patient was brought out and recorded, until a very clear picture of the type of individual which she represented was disclosed.

"Now", asked the instructor, "in what part of such a human machine as this patient appears to be would you expect to find trouble developing under the general stress of life?"

To answer such a question without any history of her symptoms, or record of what the environment had held for her, was apparently a hard task. Yet, simply from a knowledge of her type or total personality and a general knowledge of how that type must react, the students came to the same diagnosis which was found written upon the chart. Of course, it must be understood that such a method is not advanced as one to replace the usual clinical procedure. It is merely cited to illustrate how much light a study of the person may throw upon the nature of the disease.

### III

In our attempts to capture the ethereal spirit of personality, elaborate efforts have been made to measure many details of body form and to reduce them to mathematical formulæ. But, strangely, from these rigidly balanced curves and projections the vital being is fled, as a colorful moth slips from its confining chrysalis, or as hard plaster kills the spirit in clay warm from the sculptor's subtle touch. And so it has been found that the forbidding mass of measurements and mathematical formulæ have to a considerable extent defeated their careful purpose. Their object was to reduce, so far as possible, to exact terms values relating to differences in form which had previously been expressed only by description, photography, or portraiture. But we have found purely mathematical methods inadequate for expressing morphological comparisons, and so we have naturally been led to reconsider the earlier observational plan which heretofore has served biologists in the recognition of species. Naturalists have learned that they must depend largely on those immeasurable sense impressions which have in the past led to such a wealth of correct knowledge about living organisms.

It has been said of Hippocrates that he was a doctor who thought like a naturalist.

The modern physician is striving to be a doctor who thinks like a physicist and chemist in terms of fixed mathematical formulæ. There is, of course, no doubt that the precise methods devised by chemists and bacteriologists have been a boon to the sick man when these methods are applicable. But they can rarely be applied successfully by their inventors. There is nothing, indeed, more futile or helpless than a good chemist at the bedside of a desperately ill patient, unless it be a good clinician in the laboratory of a physicist. The only real difference between these two necessary and useful investigators is the medium in which each work. One has trained his senses to observe the precise motions of accurately calibrated machines; the other has trained those same senses to read the variable behavior of subtle, shifting, melting, protoplasmic energy, whipped and whirled about by all the cosmic devils, and perhaps by a few that are super-cosmic—the emotions.

The clinician, then, by careful training has developed a nice appreciation of sense impressions which often approaches and, indeed, at times surpasses the accuracy of mathematical procedure. The well-schooled ear can be depended upon to detect by auscultation and percussion minute differences of sound which are of vital diagnostic significance, a matter which for the clinician would not be improved by measurement of vibration rates. The sense of touch can achieve so delicate an appreciation of time-relations in a rhythmic cycle that most complicated cardiac irregularities can be analyzed with an accuracy equal to that delivered by a sphygmograph. Now if these powers are commonly acquired by the clinician it is logical to suppose that the eye can be trained to recognize equally well small and clinically significant differences in form and contour, in gesture and expression. In like manner the physician's wit or understanding can be schooled to recognize subtle difference in mood and temperament. As a matter of fact, these recognitions have constantly been made by medical men in the past, but have not usually been crystallized into intellectual concepts. They have remained as personal feelings to the individual doctor and, as such, have not been easy or convincing where transmitted to others. It is probably as much the lack of sharp definition as the insistent demands of the laboratory for mathematical proof which has caused in medical schools and hospitals a decline in respect for the value of observations based on highly trained sense percep-

tions. Yet, clearly, these are essential to every student of natural phenomena.

For the modern physician there is no doubt that to study the whole man, regardless of his malady—a practice much in vogue until forty or fifty years ago—is no longer the fashion. Undoubtedly, this lack of interest in the man is but a temporary bad habit into which medical students have fallen as a by-product of the idea of the laboratory's infallible efficiency which modern medical instruction delivers to them. The main object of the doctor's endeavor has perhaps for the moment been to some extent obscured by those very technical bacteriological and chemical details which are, indeed, so essential to his success. Instruments of precision and laboratory tests are but tools and brushes to the hand of the clinical artist; they should not dominate, but serve him as the latter served Phidias and Rembrandt. Now whether the revival of medical interest in the study of man *per se* is the result of a feeling that the laboratory is not yielding all that was hoped for, or because more accurate methods are now available for investigating the human animal as a whole, is a question which might be discussed at greater length. But whatever the cause, there can be no doubt that the revival has again raised the issue of the place of art in clinical medicine.

Not only in this country, but throughout the European clinics, restless stirrings to recapture the intuitive, artistic phase of medicine are appearing. Even in those strongholds of the "*es muss sein*" school of German medical teaching which became fashionable thirty years ago, and which has since maintained a stranglehold upon American medical thought and research and the beneficent millions which support them, there are signs of change. Of two great clinical teachers in Germany one still insists that no method in medicine which cannot be expressed in mathematical form is worth considering. But the other, to the former's dismay, is searching for new methods whereby to investigate the elusive depths of man's being. Each believes that the other displays signs of arterial degeneration. The curious and paradoxical thing about these men is that at heart both are artists. But the deadly fear of mathematical inaccuracy, with its twisted suspicion of sense impressions—imposed by years of rigid laboratory technic—has resulted, for one of these men, in almost complete suppression of courage or willingness to listen to the intuitive sense.

Nowadays one finds here and there a

well-trained naturalist in the field of medicine who appreciates that the success of science is not dependent upon the sacrifice of art. In discussing methods not long ago with a distinguished British anthropologist, I found that after many years of work with body measurements and biometrical formulae he had come to feel that as a means of studying the living creature, Man, the observational method of zoölogist and botanist was perhaps the best that could be used. Though he felt that, without doubt, certain things might come of measurements, he was inclined to place greater value and dependability on observation, description, and correlation, at least in the study of living organisms. His point of view should hold encouragement for the student of human constitution wherein the psychic phase forms so important a component. For it is a question whether mathematical methods can ever be devised to evaluate that imponderable quality. After talking with this anthropologist one realized that the greatest hope for solution of clinical problems depends upon correlating observations of all living forms, based on extensive knowledge of the structural, functional, and psychological evolution of each species, and their failures to adjust successfully to environment. This is an Herculean task, indeed; yet doubtless it offers a point of view which is at least as important for the physician as the present one of seeking exclusively in the environment for causes of disease.

On the Continent to-day tiny islands of artistic revival in medicine are appearing. They are small, it is true, and the waves of surrounding scientific oceans still beat menacingly upon them. But they are arising in response to a silent moving of the underlying terrain of public opinion. The remarkable growth during the past thirty or forty years of successful healing cults bears witness to a demand for relief which the regular school of medicine is not adequately giving. In discussing this matter the other day I was told of a woman who still occasionally consulted her old friend and doctor, though she had "gone over" to a cultist some months before. In a half-joking fashion she had said to the physician, "You don't really mind my going to one of them, do you?" "Why, of course not," said he, "as long as he does you no harm." "Indeed," she replied, "that he never does. But I don't know what it is about him; he seems to understand me and be willing to listen to all my foolish little personal troubles. I know he is not as thorough as you are,



nor does he make any of the tests which I know should be made. Nevertheless, I've been getting steadily better."

There is a significance in such an utterance from an intelligent human being; it can only mean that the sons of Æsculapius and Hippocrates have strayed too far from the precepts of the Fathers and are treating diseases instead of sick people. Science can occasionally treat disease successfully; and medicine should not forsake her precepts; but without the aid of that subtle art of understanding his fellowman, the physician will fail in successfully treating his patients. Medical schools cannot much longer omit from their curricula the study of the sensitive, reactive, creature Man if the ancient profession of medicine is to maintain the respect of the community for its high and beneficent calling.

#### IV

By their activities in the field of constitution-study physicians in many lands are showing their realization of the danger of this neglect. Such differences in point of view as have been presented rest almost entirely upon the question of method. The hesitation or energy with which the different observers are attacking the problem depends for the most part upon the predominance of the artist or the mathematician in each individual cast of mind. There are many good doctors throughout the world who will tell you that after the first few minutes with a patient they will have learned all that will ever be known about his individuality. Subsequent careful examinations and tests are to them simply confirmatory. On the other hand, the mind of man is never satisfied wholly with sense impressions, accurate though they be. It demands explanations of mechanism besides. This need may perhaps express an evolutionary trend from feeling to thinking. But if we admit this evolutionary trend, we cannot logically deny that sense perception or feeling—the sole dependence of the lower forms which have preceded us—is an endowment of vast significance. We cannot with impunity set it aside and rely entirely upon intellectual processes.

The mystery of living matter, which we can vaguely sense by feeling, is now the elusive yet passionate quest of the intellect, whose tool is scientific method. So elaborate have these tools become that they often confuse the issue. This danger now likewise faces the student of constitution. Indeed, one cannot escape the conviction that the systematic investigation of personality

by various technical procedures has in some degree robbed him of his "feeling" for the subject. Many who have tried to use purely scientific methods in constitution-study are recognizing this danger. For the belief is growing that the constitution of Man is of the essence of life, and consequently we can only hope to attain an approximate knowledge of it by mathematical methods. Fortunately, however, there are aspirations in the hearts of doctors which lead them safely, even in a mathematical age, to seek and find knowledge in the train of a leaping thought. It cannot, therefore, be well that great teachers of modern medicine should write as one has lately done:

"Whenever medicine dares to scrutinize the inscrutable, to solve the final and highest problems of life, be it by means of philosophical construction or fanciful mysticism, it falls inexorably into sterility; only when it renounces these problems and modestly limits itself to the attainable, to the things which in the first place are often apparently unimportant, can it make true and lasting advances for the benefit of the sick man."

From the bondage of such a philosophy the medical student can be encouraged to free himself by the wisdom of Solomon that "Where there is no vision the people perish". It is just because the study of Man is the study of the essence of life that medicine must advance toward the inscrutable, and strive to solve the final and highest problems of existence. To these ends philosophical speculation will always lead the way. But following this should come the careful toil of scientific effort. The artist must ever precede the painter, the poet dream before the printer turns his press. Much, indeed, can yet be done to gain a keener understanding of the sick man's problem if we neither deny the value of the artist's approach to a biological problem nor emphasize unduly the infallibility of science.

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### Special Article

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#### REGULATION OF PHYSICIANS BY LAW

(Eighth Article)

In previous articles we have found fault with the so-called "limited license" provisions in existing laws and with enactment of special laws constituting separate boards of examiners for various cults in the healing art, because they all, in effect, put the stamp

of legal sanction upon incompetency in one form or another. When such special legislation is being sought the applicants almost invariably argue that they desire only permission to utilize some particular method of *treatment*; that they do not pretend to *diagnose* the condition; that they know little and care less about the pathology of any disease; that they accept the patient's word for it, or intuitively recognize, that he is suffering from rheumatism, malaria, neuralgia, or what not. In other words, they one and all proclaim that diagnosis is not essential, that indeed it is a matter of no material consequence; and one class of healers even goes so far, practically speaking, as to declare that *treatment*—save in the form of prayer—is usually unnecessary. In giving such a reason in support of their claims, they certainly cannot be accused of reasoning, for it would seem reasonable to the ordinary mind that diagnosis must necessarily precede any form of treatment; that before treatment, meaning corrective measures, may be applied one should know something about the condition to be corrected, something about its cause and the processes of action and reaction that brought it to the state requiring treatment.

The claim set up for exemption of religious healers from medical practice laws is well described by Kelly. "Most of the acts regulating the occupation of healing the sick contain provisions for exempting from their scope the practice of religious tenets or the beliefs or ministrations of any church. Many of these exemptions are illogical, ill-founded in necessity and offensive to one's sense of substantial justice. If they go merely to the exemption of the free exercise and enjoyment of religious profession or worship under the constitution, they are unnecessary because such constitutional rights prevail regardless of statutory enactments. Most of these provisions undoubtedly are inserted because those who promote them know that their alleged religious services are not protected by the constitution as the enjoyment of religious profession or worship.

The question of fact, whether a particular transaction is the exercise of religious profession or worship, or of the tenets of a church, it not a difficult one. Whether the act in question is one of religious profession or worship, or is merely the service of a healer in pursuit of his occupation for pay, is generally apparent.

I am of the opinion, as we all are, that there ought to be no interference with the free exercise and enjoyment of religious

profession or worship. But I am also of the opinion that statutory enactments ought not to be contrived to exempt from the just regulation of the occupation of healing those who under the name of religion pursue healing as an occupation for pay. All persons who hold themselves out to the public as being engaged in the occupation of healing the sick for hire ought to be brought under the regulating statute, regardless of their religious pretensions, ministrations or connections, and be made to conform to the single standard of education and proficiency."

To any clear thinking individual, whether trained as a physician or not, it must be apparent that any and all forms of medical treatment must, to be effective, rest fundamentally upon diagnosis. If that be true, ability to make correct diagnoses should be the basic test of one's right to practice the art of healing, and such ability must in turn rest upon knowledge of human anatomy, physiology, and pathology—which might be described as abnormal anatomic and physiologic states. Concerning such a test for practitioners, Kelly says:

With these considerations before us we see the reason why examinations as to qualifications should be required of persons who desire to treat even a limited number of diseases, and pretend to practice a system that does not require a prolonged course of training in the scientific branches, and why they should be required to pass examinations in all scientific subjects relating to the human body in health and disease. No man is competent to assume the responsibilities of a healer of any kind until he is well grounded in all the fundamental scientific knowledge about the human body. Until he is so trained his practice is a constant menace to the public health. If he agrees to treat but a limited class of diseases, or to confine his activities to but one part of the body, he is still a dangerous man until he is able to distinguish the disease which he purposes to treat from all the other diseases which he does not purpose to treat. Patients do not come labeled with their complaints, and the practitioner is manifestly unable to make a correct diagnosis until he has familiarized himself with the human body, the laws of its health, and the signs and symptoms of the diseases to which it is heir.

No one contends that the specialist who limits his practice to diseases of the eye, or the ear, is competent to practice on the organs until he has studied the fundamental branches of all the sciences relating to the human body. The same is true of the skin specialist, the genito-urinary specialist, the specialist in surgery, and all the other specialists. Not one of these is a safe doctor, from the point of view of the public health, until he is familiar with all of the scientific knowledge about the human body.

If the eye specialist does not know anything about the disease of the kidney, or of the chemistry of the urine, it follows that he will fail to understand the significance of certain eye symp-



toms of the utmost importance due to kidney diseases. If he is ignorant of gonorrhea, it follows that he is incompetent to diagnose and to treat certain grave eye diseases, neglect of which results in blindness. If he does not know the symptoms of syphilis, malaria, gout, or rheumatism, it follows that he is incompetent to diagnose and to treat many important eye diseases.

The same is true of all specialists and all practitioners. No person can safely practice healing, even in the most limited field, until he is familiar with the signs and symptoms of all diseases. He can not acquire this familiarity without a study of all of the branches of scientific knowledge relating to the human body in health and disease. It may not be said, therefore, that a healer is a safe practitioner because he does not use drugs or the surgeon's knife, or that classification of healers on the basis of the use of non-use of drugs or the surgeon's knife affords ample protection to the public health.

**Stress Knowledge of Disease More and Treatment Less**

From these observations it is apparent that the test of the healer's efficiency is not determined primarily by his plan of treating diseases, but by his knowledge of diseases, and by his ability to make a correct diagnosis of the conditions which he is called to examine. His ability to treat diseases, therefore, depends upon his familiarity with all of the branches of scientific knowledge pertaining to them.

The same examinations should be required of all persons who purpose to practice healing, particularly because all practitioners, in respect at least to the all-important function of diagnosis, necessarily assume the same responsibilities. It is imperative that everybody who holds himself out as a healer of diseases should be able to recognize the axact nature of the conditions which he is called upon to examine, so that he may be able to apply a proper remedial agent, or send the patient to a physician who can. Without the scientific knowledge which enables him to recognize the nature of diseases, the healer may not safely prescribe any form of treatment, and he becomes a grave menace to public health even by doing nothing at all.

It must be apparent to the person who examines this subject only casually that the use or nonuse of drugs or of the surgeon's knife does not establish a line of demarcation by which the practitioners who are dangerous to the public health may be marked off from the practitioners who are not.

(To be continued.)

## Lay Mirror Reflections

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### DOCTORS TAKE THE WARPATH ON MEDICAL LIQUOR ISSUE

(Newark News, May 20, 1927)

When at the end of November the Supreme Court, five to four, upheld the "pint in ten days" limitation upon medical prescription of whiskey, Justice Brandeis in his opinion for the five declared that a "preponderating" medical opinion was "against" whiskey as a therapeutic agent. On that point the high court is, in effect, reversed by the house of delegates of the American Medical Association Convention at Washington.

After debate in executive session it is an-

nounced that the delegates, numbering 4,000 physicians, have instructed the association trustees to seek legislation to make it possible for a physician legally to prescribe "whatever amounts of alcoholic liquors" his judgment and experience may dictate for the needs of his patient. In deference to a minority opinion, the resolution concedes the desirability of "reasonable restrictions". In the phraseology quoted above, however, it is sufficiently apparent that this refers to protection against misuse of a right which, in its proper employment, the doctors insist upon having without qualifications.

The action taken is a complete reversal of the 1917 attitude of another association convention, upon which the Brandeis opinion turned. But the referendum taken by the journal of the association in 1921, in which more than 31,000 physicians, by 51 to 49 votes in each 100, declared liquor a medical agent of value, had already reversed that 1917 judgment. In the interim the influenza-pneumonia epidemics had shown that in some medical crises alcoholic stimulation of the sick is imperative, far beyond the Volstead law's homeopathic dosage.

In this latest action the doctors properly are not so much concerned with the question whether whiskey is a disease specific as with their professional right to practice their calling according to their training and experience. What they demand, and have a right to obtain, is freedom from the dictation of the Anti-Saloon League and a subservient Congress in a matter of medical judgment, with which neither the league nor the Congress is in any sense endowed.

That the doctors have blood in their eyes as to this business is made apparent by their simultaneous determination to demand control of patent medicines which are largely alcohol. They make the point that these are illegal, under the law as it stands, wherever the spirit content is as much as one-half of one per cent. While legitimate medical practice is restricted to a dribble, the open door to this sort of flood is a fitting commentary upon the sanity of prohibition enforcement.

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### CHANGING THEORIES ON DIET

(Evening Post, N. Y., May 23, 1927)

Among the many things that Benjamin Franklin tried to teach his countrymen was that the theory and practice of medicine change from time to time and that what is considered excellent by one generation is likely to be considered bad by the next. Franklin's theory found strong indorsement when Dr. Walter C. Alvarez of the famous Mayo Clinic at Rochester, Minn., enlivened the meeting of the American Medical Association, now in session at Washington, by vigorously assailing the dietitians for stuffing their patients with vitamins and iron in the form of greens, spinach, salads and fruits. It can't be good for a really sick man to have to eat food he doesn't like. "Fortunately, fads are self-limiting," said Dr. Alvarez, "so the time is doubtless coming when spinach will retire into the background and milk toast, custard and calf's foot jelly will again appear on the tray of the invalid." All of which indicates that we are likely to return to the delicacies of the sick that were approved of by our forefathers and that gave ailing stomachs a chance to rest for a while. But Dr. Alvarez placed the greatest stress upon allowing patients in hospitals to have sufficient sleep. He will find multitudes who will agree

with him that the pernicious habit of awakening the sick at 6 o'clock in the morning may be good for the hospital chefs and the doctors who want to get through their early rounds, but it is bad for the patients who want to sleep. Rest and sleep are often more useful than drugs.

### STERILIZATION UPHELD BY COURT OF LAST RESORT

(Editorial, Newark News, May 6, 1927)

New Jersey's Supreme Court in 1913 declared unconstitutional the sterilization act, passed by the Legislature in 1911, on the ground that it violated the Fourteenth Amendment to the Federal Constitution. This week the United States Supreme Court, sustaining the sterilization act of Virginia, declared it was not in conflict with the Fourteenth Amendment.

This amendment provides that no person shall be deprived of life, liberty or property without due process of law, nor denied the equal protection of the laws. Under the New Jersey sterilization law it was proposed to perform salpingotomy upon a young woman inmate of the Village for Epileptics to prevent her from continuing her feeble-minded kind. Justice Garrison, who wrote the opinion in 1913, declared that the execution of the law in the pending case "threatens possibly the life and certainly the liberty of the prosecutrix in the manner forbidden by both the State and Federal Constitutions unless such order is a valid exercise of the police power." He proceeded to demonstrate that it was outside of the police power and, therefore, the act was unconstitutional. No appeal was taken from this finding.

The Virginia case affirmed by the court of last resort also concerned a young woman inmate of that state's epileptic institution. She was the daughter of a feeble-minded inmate and had given birth to a feeble-minded child. It was argued in her case, as it was held in the Jersey case, that she was not getting the equal protection of the law because the statute did not apply "to the multitudes" in her mental class outside of institutions. On this point Justice Holmes wrote:

It is the usual last resort of constitutional arguments to point out shortcomings of this sort. But the answer is that the law does all that is needed when it does all that it can; indicates a policy; applies it to all within the lines, and seeks to bring within the lines all similarly situated so far and so fast as its means allow.

It may be expected that this decision will encourage those who have been so long struggling to overcome the earlier decision of the State Supreme Court by procuring the passage of a measure at Trenton that would meet legal objections raised. A law drawn in conformity to the Virginia statute would stand despite legal assaults. The question is whether it would stand up in the Legislature against the political and religious obstacles.

Justice Holmes is convinced—and he spoke for all of the Supreme Court with a single exception—that "it is better for all of the world if, instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind." Emphasis was placed on the statement that the law to bring this about must be so safeguarded that it would protect the patients from abuse.

## Observations from the Lighthouse

### RELATIONSHIP OF PHYSICIAN TO PUBLIC

One of the "burning questions" of the day for organized medicine and for the individual practitioner is the attitude of the public toward medical affairs. In some state medical societies a special committee on "public relations" has been constituted, and each component county branch society has been asked to follow that lead. In New Jersey, our Welfare Committee fills that situation satisfactorily—and it seems needless to change its name or duplicate its personnel—but it might be well to consider formation of a similar committee in each of the county societies.

Much was said about this subject in that portion of the report of the last Tristate Medical Conference published in the August Journal, and development of the antidiphtheria campaign has so forcibly illustrated the growing closer relationship between lay and professional organizations that we deem it wise to devote our "observations" this month to a practical rather than a scientific topic.

#### The Evolution of Organized Medicine

Calling attention to the fact that evolution may mean change without progress, William T. McArthur (California and West, Med., 26:625, May, 1927) advises organized medicine to follow the policy of business organizations and have an annual audit for the purpose of determining where they stand. At the beginning of the twentieth century there was brought forward to the account of organized medicine a credit of immeasurable value to humanity, for all humanity was the beneficiary. This stock in trade represented research, not only into the cause, prevention, control and cure of disease, but methods, like anesthetics, for the relief of suffering. It included the professional code of ethics—a veritable rock of Gibraltar against the storm of prejudice and passion that at times assailed the profession both from within and without.

A recent asset, registering a great step in advance, and one that will mark an epoch in the history of our profession, is the standardization of hospitals. No other measure for furnishing protection to the sick against careless diagnosis and incompetent treatment has resulted in greater benefit. Only a few years ago diagnosis written on a chart meant, in too many hospitals, but little though, little observation and little investigation on the part of the physician because he was not required to justify his diagnosis before a hospital staff. Now, before a surgeon writes on the chart with pen and ink his preoperative diagnosis, he will have exercised his gray matter considerably, because he is aware that he is going on record for all time, subject to the criticism of his confrères if he has failed to make use of every means of diagnosis at his disposal.

Standardization of hospitals has also furnished



records and made statistics more reliable. It has changed hospitals, not only into educational institutions for doctors, interns, nurses and the community, but has converted them from mere boarding houses into establishments where those impaired in health can receive efficient care.

While there are countless organizations engaged in some form of medical service, the main stem of organized medicine in the United States consists of national, state and county associations. The county society is the unit; therefore, it logically follows that organized medicine depends for its success upon the honest effort of the individual doctor to promote and perform the needful duties of his county society. The average physician is inclined to look to the national or state association for the bringing about of results, but he should look nearer home. The work of his county society, and especially of his own individual self, are the 2 main factors that will influence the evolutionary process in the direction of progress.

To supply the need of public education in health matters and offset the propaganda of cultists, lay faddists and pseudoscientists, the A.M.A. is doing splendid work through its magazine, *Hygeia*, with articles in other magazines and through a press syndicate. It sends forth a Macedonian cry to the state and county associations for help. The task is a big one; propaganda of intelligence spreads slowly against propaganda of ignorance. One way in which the individual physician may render assistance is through the daily contact with his patients. "A slow trickle of publicity directed through the channels reaching women and thus children, will," says Jennings, "prove the most effective method of publicity". The second method of giving assistance is through efforts in the county society. The obligations of the county unit increase from year to year; their liquidation is left to a few of the workers. The obligations of the county societies should be organized and be under the direction of active working committees. The legislative committee should take an active interest in all civic affairs relating to medicine, many of which are now conducted and directed by lay organizations or some form of cultism. The committee on publicity should arrange a program that would furnish reliable scientific medical information to the public. Articles in the press, or scattered broadcast over the radio, should have the endorsement and be given out under the name of the local county society. The committee on graduate extension work should arrange lectures, demonstrations and clinics for the profession, especially in the outlying districts; for the public should be protected against incompetency among ourselves. Invoices show a vast and valuable amount of information in the possession of organized medicine that has never reached the public.

The expert auditor examining the balance sheet of the first quarter of the present century will be forced to the conclusion that organized medicine has contributed more to the advancement of civilization than all other agencies combined. During this time the span of life has been increased from 48 to 55 years, and this has been brought about by the tireless research work of the medical profession in the prevention and treatment of disease. What is needed to make even greater progress, in the next quarter century is an enlightened and coöperative public. The application of known medical science could wipe small-pox and diphtheria completely off the slate.

### The Altruism of Organized Medicine

There are many projects of an altruistic nature engaging the profession of medicine, both collectively and as individuals, regarding which S. M. Blackshear (New Orleans Med. and Surg. J., 79:797, May, 1927) believes the public should from time to time be informed. It is the further duty of the profession to see that this news is furnished in a safe and sane way, as medical items not so sponsored are often misleading if not incorrect. Publicity has formerly been taboo in medical circles and it has been a hard job to wean the profession from its solitary diet of medical pabulum, but with the changing and already greatly changed human psychology, we cannot longer maintain our monkish attitude. We must be more confidential with the public or they will not be more confiding in us.

Education, tremendously stimulated by the radio, is always asking for more and this is especially true about medical matters. This desire must be met by those most competent for doing so—the members of organized medicine. The profession is waking up to the fact that the judicious use of publicity is a powerful instrument for doing good, and this is why some state organizations have created censorship committees whose function it is to look after publicity work.

It would be easy for us to say that it is no more our duty to protect humanity against the exploitation of its sick and ailing by charlatans, than it is the duty of an honest merchant to run to cover all dishonest peddlers. But we feel a responsibility due to the confidence humanity has reposed in us as the guardians of its health, and a faithful few are always ready to respond to every call to protect our sacred charge.

The laity cannot be blamed for its lack of interest in these affairs as they have not been acquainted with the situation. They do not know that the doctors asked the State Legislature to grant them the right of voluntary incorporation for the purpose of mutual improvement and promotion of the public good. They do not know that a prospective medical student must give evidence of more than a high school education before he is permitted to take up the study of medicine, and that he must take 4 or 5 years training in a high class medical school which is equipped with laboratories, lecture rooms and clinics, and usually 1 or 2 years internship in a standardized hospital before he faces the state board to qualify as a healer of the sick. Nor do they ever count the cost of such blessings as antitoxin for diphtheria, insulin for diabetes, inoculation against hydrophobia, scarlet fever, typhoid fever, and so on, ad infinitum. Under ordinary circumstances the profession is content to let the public mind remain in this indifferent state of bliss, but when things have come to such a pass that uneducated men and women can equip themselves within a few weeks to become universal healers of human ills, it is time the public should be reminded of the truth, and without doubt organized medicine is the proper source from which this truth should come. Unless a so-called healer possesses a knowledge of the fundamental branches of medicine he is in the position of one trying to solve problems in higher mathematics without having learned to count.

Among the most important purposes of organized medicine is the education of the public in preventive medicine and hygiene. We desire only to promote the health of the community and prolong the life of the individual. With this in view

organized medicine has been promoting a widespread campaign for periodic health examinations. We would much rather be able to prevent illness, and where possible to stamp it out altogether as has been done with yellow fever, than to suffer with our patients who are stricken with disease. The power of advertising is wonderfully strong. It is not only the privilege but the duty of the medical profession to use this tremendous force to spread to the world the doctrine of keeping well.

### Regular Medicine and the Public

Although inserted parenthetically, Caryl Potter (J. Missouri State Med. Assoc., 24:210, May, 1927) asks an arresting question: "What investigative work of any value has ever come from the minds or boisterous exaggerated prattling of the charlatans, irregular faddists or eccentric members of any of the irregular cults advocating the short cut to scientific medicine?"

In setting forth the extensive background of the physician, he observes that medicine is a combined science and art. Anatomy, physiology and pathology are the 3 fundamental medical sciences, which in the course of years of research by trained minds have undergone subdivisions; anatomy falling into gross anatomy and histology, physiology including physiologic chemistry, and pathology embracing bacteriology, gross and microscopic pathology. A preliminary education is essential for the medical student because there is no other science in which the truths are more complicated or the unsolved problems more numerous. First, he must know languages because the etymology of many English and most medical terms is Latin, with a smaller percentage of Greek, and because some of the best in medical research and literature originates in the Romance and Germanic nations and appears in their languages without satisfactory translations. Then, too, medical men often visit these countries and pursue studies there.

The cell structure of vertebrates and invertebrates so closely resembles ours that the study of biology and comparative anatomy leads naturally to a foundation for the study of human anatomy. The basis of study for organic and physiologic chemistry and materia medica is inorganic chemistry, and the requirements of diagnosis and treatment are so dependent on all of them that a full course in each is essential for both the study and application of medical teaching. Physics teaches mechanical, electric, thermal and hydrostatic principles so necessary in medical practice. Mastery of the 3 fundamental branches is therefore essential before commencing the study of higher branches of medicine and surgery with the practical application of medical and surgical treatment. The art of medicine lies in the everyday use of this training in diagnosis and treatment of diseases—in other words, its application to the individual. To accomplish this the patient must be a part of the study, and for this reason the last 2 years of all great medical schools are incorporated with hospitals so that bedside work can be taught before the medical graduate commences his internship in a hospital where he can practice under supervision by staff members, men of accepted rank and proficiency.

Owing to the various forms of drugless healing, confusion has arisen in the administration of the medical practice laws, through misconception of what is meant by this simple term,

practice of medicine. It is evident that anyone who is to treat human disorders, regardless of the method used, should have a knowledge of the fundamental sciences by which he can make an accurate diagnosis. It follows also that the educational qualifications required of one (the physician) should be required equally of all who profess to treat the sick. That the practice of medicine is not limited to the giving of drugs, but includes any and every useful means of diagnosing and treating human disorders, has been recognized repeatedly by the national supreme court. In Texas it was declared that osteopaths, like physicians, should be required to have scientific training, the decision applying with equal force to any other class of healers with limited training and scope. A recent ruling in a case carried from Ohio to the Federal Supreme Court declares that chiropractors must secure licenses from the medical board or they will be subject to prosecution for practicing illegally. The forces of law and order in each state should not rest until one standard for educational qualifications has been established which will be equally fair to the physician and to everyone else who is authorized to practice the healing art.

After all, the cults offer nothing that the medical profession has not incorporated or discarded. They have nothing that compares with physiotherapy, which embraces electrotherapy, mechanotherapy, thermotherapy and hydrotherapy. All the special virtues claimed by the "rub" doctors are included under mechanotherapy, only one branch of physiotherapy.

The conscientious surgeon prevents as many operations as he performs. The conscientious practitioner advises necessary surgery and does not treat any form of disease which he feels incompetent to handle. According as medical men are honest or dishonest, trained or ill-trained, they may be divided into 4 classes: the honest trained, the honest untrained, the dishonest trained, the dishonest untrained. The same classification might apply to all business and professions but it is more significant from the medical standpoint because of the greater opportunity for good or bad service. The outshining gem is the honest trained physician or surgeon. Does the public appreciate him? A plaster-of-Paris smile and a slap on the back go much farther with many people and are dubbed personality, yet personality does not teach brain cells to formulate correct diagnosis nor does it guide sure, deft fingers past vital structures to distinguish the normal from the abnormal when the patient is asleep under the anesthetic. The cry for the old family physician is rather an expression of a desire to imbue the modern school with the *ideals* of the older generation. One must not forget that the greater part of the physician's armamentarium lies above his ears, and not in instruments of precision, laboratories and unwieldy apparatus.

The American Medical Association is one of the greatest friends the public ever had and in conjunction with its great journal it stands as a watchdog between the public and agencies that would destroy its health and happiness. Its laboratories have thoroughly analyzed and published the formula of every patent medicine on the market, showing the uselessness of some, the harmfulness of others. Its activities have done much to ruin the patent medicine industry and have made great drug houses fear to offer to the profession any drug without proved merit.



## Current Events

### TRISTATE MEDICAL CONFERENCE

(Continued from August Journal)

#### ANTIDIPHThERIA CAMPAIGN

*Chairman:* The next topic on the program is to be presented by Dr. Joseph S. Lawrence, Executive Secretary of the New York State Medical Society, on "The State-Wide Antidiphtheria Campaign".

Dr. Lawrence: Just about 2 years ago a number of leaders in public health work began to discuss with their organizations the feasibility of protecting children against diphtheria. One powerful welfare organization at its annual meeting proposed that they undertake stimulation of the public to the advantages of proper immunization of young children. The President of the New York State Medical Society appreciating the great public service that could be rendered by enlisting the medical profession in a campaign of immunization, invited representatives from the Department of Health, several voluntary organizations engaged in public health activities, and the chairmen of standing committees and other officers of the state society, to confer on plans for promoting active campaigns of immunization. This conference was well attended and a great deal of enthusiasm was evinced by all toward the development of a state-wide campaign. Following this meeting a smaller committee representing the same organizations; namely, the Department of Health, Department of Education, State Charities Aid Association, Metropolitan Life Insurance Company and the state medical society, was organized as a working committee to develop a program. This committee has met monthly since December, 1925. Its first task was to ascertain what contribution each organization could make to the general program and coordinating of these suggestions. This resulted in the preparation of a campaign handbook, in which was stated the general health problem which diphtheria presents, a brief review of what had been accomplished up to that time in the way of controlling diphtheria, and a general program for a five-year campaign of immunization. This handbook was printed and widely distributed throughout the state by the county committees on tuberculosis and public health, by the State Department of Health and by the county medical societies. The President of the State Medical Society wrote to the presidents of the county societies inviting their interest and urging that, at an early opportunity, they have their county society pass a resolution endorsing the campaign. The county societies responded very heartily and promptly. There was not a single objection registered to making such endorsement, and, in many instances, the local society took steps to become an active factor in the promotion of a campaign in their districts. Notably among these counties are Erie, Schenectady, Monroe, Broome and Orange. The annual meeting of 1926 devoted an entire evening to the consideration of diphtheria immunization, when papers were presented by the President of the State Society, the Commissioner of Health of the State Health Department and the Commissioner of the New York City Health Department. Each district branch, at its annual meeting, included at least one paper on diphtheria immunization as a part of its program and, in every instance, that paper proved to

be one of the most interesting features of the program, bringing out more discussion than any of the other papers. The character of the discussion in every instance was favorable to promotion of the campaign, and such criticism as was offered was invariably constructive. Placards were prepared by the State Charities Aid Association with the advice and approval of the working committee, for use in physicians' offices. These were distributed by the county committees on tuberculosis and public health or in those counties where there is no such committee, a supply was given to a member of the county medical society, who volunteered to make the distribution or, in some instances, the names of the physicians were forwarded to the main office of the State Charities and pamphlets were sent to the physicians by mail. A large, attractive billboard poster was prepared, the artists donating their services, the lithographers preparing the posters at cost, and the Outdoor Bill Posting Company posted them without charge. Approximately 1000 of these posters were used throughout the state, and more than 5000 placards were distributed to physicians for use in their offices. Much publicity was given to the campaign both generally and locally. The governor was asked to make a statement, which was broadcast; the commissioner of health prepared several radiograms, and lecturers from the state department of health and voluntary agencies, used every opportunity of discussing before groups of parents the advisability and importance of having children immunized. Several insurance companies, among them the Metropolitan and the John Hancock, prepared pamphlets which they had distributed by their agents. The Metropolitan also prepared a moving picture film, "New Ways for Old", which it distributed freely to communities through its own agents for use in the movie houses. It also stimulated its agents to have children in their own families immunized, and its record to date is one of which it has ample reason to be very proud.

The technic of immunizing children was widely demonstrated by representatives of the Department of Health before groups of physicians, either at the time of a society meeting or at demonstrational clinics; several pamphlets describing the technic were issued by county societies, and articles discussing the technic found a place in the columns of the State Journal and of the several county bulletins. Several county societies prepared placards of their own. The working committee following the advice of representatives of the Department of Health endeavored to stimulate the greatest activity in the second class cities, because records have shown that the disease was most prevalent in the larger centers of population, but in spite of the fact that the principal effort was directed toward the second class cities, most of the work to date has been done in the rural districts or third class cities. Outstanding among all is the experience of Auburn, where 5 years ago they had a severe epidemic. Following that, the district state health officer of that section, with the assistance of local physicians, immunized practically all of the children in the city under the age of 10 years; as a matter of fact, they probably reached about 95% of them. Since that time there has not been a single death from diphtheria in that city, and only a few cases have developed, and those, it has been definitely shown, were in children who had in some way escaped immunization. Without doubt, Auburn freed itself of diphtheria through effective immunization, but it must

be said that statistics show that there are several other cities in the state which have been remarkably free from diphtheria in spite of the fact that their children have not been effectively immunized.

There was some difference of opinion, naturally, between the professional and nonprofessional groups, as to the manner in which the campaign should be conducted. I shall briefly describe 2 or 3 programs which were employed: Newburgh, a third-class city, had a high diphtheria rate for the last few years and the physicians had offered to immunize the children if the parents would bring them to the hospital dispensary, and, accordingly, some children had been immunized before the local welfare agency undertook to put on an intensive campaign. They organized a committee of public spirited citizens, selecting as chairman a prominent manager of a large manufactory. This committee, through personal effort, solicited the interest, support and coöperation of every organization—civic and social—in the community. It also sought the assistance of the local newspaper which, up to that time, had seemed to be more inclined to give space in its columns to antimedical articles. The city was surveyed; the number of children ascertained; their ages and homes tabulated, and the parents interviewed. The necessity and simplicity of immunization was explained and the parents invited to send their children at a certain time to a center where clinics were to be conducted and children immunized without cost. After the city had been thoroughly covered in this personal way and the date for the first injection approached, certain clubs offered to supply automobiles for use in bringing small children, or children from a distance, to the clinics, and the newspaper carried stimulating articles urging all parents to bring their children to the clinics, and even carried favorable editorials. Every physician in the city expressed his willingness to assist in the immunization. Three clinics were conducted at weekly intervals and approximately 50% of the children of the city were immunized at those clinics. Several clinics have been held since then to immunize some who did not come out to the first series. The physicians of the city report that during the time the clinics were held, a larger number of parents from their private families had their children privately immunized than had been the custom previously, and since the clinics, they have privately done considerable immunizing. Several other cities and villages in Orange County, stimulated by the experience of Newburgh, undertook a similar campaign, but slightly modified. In Middletown, for instance, the health officer was chairman of the committee. With that exception, the procedure was practically the same as that in Newburgh.

In Schenectady, the county medical society made the first move toward promoting the campaign. The health officer of Schenectady was prepared to organize public clinics and urge the immunization of children by this means, but when he found that the medical society was interested and a committee appointed to promote a program, he was very willing to take membership on that committee. The antidiphtheria committee, appointed by the county society, selected one of its number as secretary, and the city health officer gave him an office in the county building. A survey was made of the city; from the census records a committee of girl scouts got the names of the children under 10 years of age, as had also been done in Newburgh and Middletown. With the names of the children thus collected, the city nurses visited the homes and discussed with parents the advisability and

means of having their children immunized, urging that they take their children to the family physician. The nurses made this canvass in August, 1926, but did not cover more than probably 25% of the city. During September, 24 physicians immunized 95 children; in October, 34 physicians immunized 182 children. Records since that time have not been accurately kept and an epidemic of measles appeared in December, which seriously interfered with the work.

I neglected to mention that the film, "New Ways for Old", was shown at the movie houses in these 3 communities.

Erle and Monroe county medical societies have also appointed antidiphtheria committees. These committees have worked mostly through stimulating the health officers and local physicians. The main difference between these types of campaigns probably can be summed up in this: that in Newburgh the aim was to get all of the children immunized as promptly as possible, and to do that the physicians were asked to contribute their services. In Schenectady and the other counties the aim has been to create a desire in the parents for immunization of their children so that they will be convinced that immunization is necessary and secure it not only for the children of today, but those who are still to become susceptible. Probably the 2 types of campaigns will not be so different in their results as they have appeared in their promotion. The difficulty with the type of program in which the county society has taken the lead seems to be in securing hearty coöperation of the physicians. They advocate that the immunization should be made by the family physician, but it is not at all an unusual reply to receive from family physicians that they do not care to bother with immunizing children, but send them to the health officer. One reason for this indifference may be a lack of familiarity with the technique of immunization. It is an exceedingly simple operation that any physician is qualified to perform who has ever given a hypodermic injection. In New York State the toxin-antitoxin is supplied by the State Department of Health free of charge to health officers, and physicians may secure any quantities that they require by making application to the local health officer.

In Cattaraugus County, where a county health unit demonstration is in progress, physicians have been employed to immunize the children as they are collected by the nurses at centers, at the rate of 75c. per inoculation. In Schenectady the physicians of the county adopted the following schedule of fees: \$5 for the immunization of 1 child; \$7 for the immunization of 2 children in the same family, and \$9 for the immunization of 3 children in the same family. Some physicians are charging as much as \$5 for each inoculation, making a total of \$15 for the immunization; others are charging an office fee for each injection.

At present the State Department of Health estimates that probably 500,000 children in the state have been immunized within the last 2 years and a large proportion of these are school children. The immunization of children of school age is comparatively simple, because they are already gathered in the school and it is simply a matter of getting the consent of the parents and having the operation performed by the school physician, but our working committee has been making a special effort to have the preschool children immunized. Several plans have been outlined for endeavoring to reach the preschool child. One is that the family physician should introduce the subject to his families, and some physicians have



written letters to all of their families commenting upon the advisability of having the work done and offering to do it at the parent's request. Another scheme has been to have the school nurses visiting the families, urge that the children that are not of school age be immunized at the same time or subsequent to the immunization of those that are in school. But there is another method which probably has not been used as extensively as it might, and that is to have the subject of immunization be a part of the programs of all mothers' clubs or organizations in which parents, particularly mothers, are interested.

We have all noted with considerable satisfaction a decline of the diphtheria case and death rate in our 3 states in the last several years. To what extent this may be attributed to immunization is difficult to determine, but it must be remembered that immunization will exert its influence in at least 3 different ways; first, the immunized child will be protected; second, a certain number of children being immunized will, therefore, limit to a certain extent the spread of any epidemic that might start; and third, the publicity that has been given to diphtheria through the immunization of children is making both the parent and the physician more careful in the diagnosis and treatment of sore throats in children. As an indication of the amount of publicity given to the immunization against diphtheria, I may say that from one clipping bureau which supplies my office with newspaper clippings, during the month of May we received 119 clippings taken from almost as many different newspapers from 30 counties in the state. At the same time, I have definite knowledge that the campaign was being actively waged in at least another dozen counties.

In 1926, there were reported in New York State, exclusive of New York City, 3647 cases of diphtheria, with 250 deaths, the fewest cases and deaths that were reported in any one year since 1908, when the first accurate records were made. During the year there were reported from the whole state, 10,678 cases, with 728 deaths, a case rate of 94.3 per 100,000 and death rate of 6.4 per 100,000 population.

It does seem probable that within the next few years the control of diphtheria will be as definite as it now is of typhoid fever.

*Chairman:* Discussion of Dr. Lawrence's very interesting presentation of this question will be opened by Dr. W. F. Donaldson, Secretary of the Pennsylvania State Medical Society, who will tell us what this state is doing toward the prevention of diphtheria.

*Dr. W. F. Donaldson, Pittsburg, Penna.:* Gentlemen of the Conference—When I received notice on May 23 that I was to report for Pennsylvania the progress in its antidiphtheria campaign, I assumed it was well-known by the Chairman that I am not a public health expert, and that I would be expected to report from the point of view of a general practitioner, and an officer of a county and a state medical society. I, therefore, promptly addressed an appropriate questionnaire to the secretary of each of our 63 component medical societies, to the chairman of the public relations committees in 17 counties, to the county medical directors (official representatives of the State Health Department) in 64 of our 67 counties, and to the health officers of 10 cities, including Pittsburgh and Philadelphia.

From my personal knowledge and from a review of the journals and reports at hand I note that the subject of permanent immunization of children against diphtheria was reported and discussed at

our state society meetings and various county society meetings in 1920 and 1921, but it was not generally and actively put into practice until 1923.

The questionnaire reads as follows: What organization in your county has taken the greatest interest in popularizing the Schick Test and immunization against diphtheria? (Please record briefly methods used and results obtained.) (a) County Medical Society. (b) State health authorities. (c) Public school authorities. (d) Miscellaneous organizations.

To date we have heard from 50 counties, replies having been received from 44 officers of county societies, from 31 county medical directors, and from 7 city health officers. There has been favorable action in 70% of county medical societies reporting, ranging from mere endorsement of the movement, individual contributions by members of time, volunteer services, addresses, newspaper articles, and special meetings with special programs to the complete contribution given by the Cambria County Medical Society. There has been no action at all in 13 county medical societies. In 2 counties reports received indicate that the county medical society or its individual members took little or no action because the opinion prevailed that immunization should be entirely limited to the efforts of family physicians.

Illustrative of the greatest contribution which may be made by a county medical society, I herewith offer extracts from the reply received from the Secretary of the Cambria County Medical Society, which has a membership of 163 physicians who practice in a county with a population of 217,628. Cambria is a mountainous county with some agricultural interests and considerable activity in coal mining, steel making, and allied interests. Secretary Meyer writes, "The Cambria County Medical Society should receive the reward for having shown the greatest interest in this work. We could not have succeeded, however, except for the coöperation received from the state health authorities, the Cambria County Chapter of the American Red Cross, and the county school authorities. In 1921, members of our society, urging the use of toxin-antitoxin, appeared before school boards, health boards and parent-teacher associations in all boroughs and townships throughout the county. After 6 months of this preparatory work, permission having been received from the various school boards, the Red Cross nurses arranged for the immunization of children, securing permits from parents, etc. The state health department furnished the toxin-antitoxin, and the members of our county society, without remuneration, immunized in the year 1922, more than 17,000 Cambria County school children, exclusive of the city of Johnstown. This work was continued free of charge until January 1, 1927. Parents are now asked to pay a moderate fee for the immunization, ranging from \$1 to \$3 per child, depending on the number of children in the family, economic circumstances, etc. The Red Cross does the detailed work, collects the fees, the state health department furnishes the toxin-antitoxin, but the doctor is paid \$25 a day for his work. The members of our society are called in alphabetic order, each being given an opportunity to do immunization work. I believe 25,000 Cambria County children, exclusive of the city of Johnstown, have been immunized to date. Johnstown public schools are now preparing for a similar campaign, the work to be done free of charge. I might say in conclusion that it is "team-work" that has made our campaign a success".

The report from the Cambria County Medical

Director—a 3 page letter—confirms the report from the Secretary of the Society, referring to the Cambria County Medical Society as “the best Society in the State”.

In contrast to the pioneer work of the Cambria County Medical Society, we quote from the report of the Secretary of the Franklin County Medical Society, which has a membership of 53 physicians, practicing in an agricultural county with a population of 74,730: “Our County Medical Society was never consulted nor asked to assist in any way. The State Health authorities, consistently ignoring the County Medical Society, assumed full control of all activities, consulting and soliciting help of welfare organizations, furnishing toxin-antitoxin free of charge, and asking individual physicians to work without remuneration. Practically every child in Franklin County has been immunized.”

In both counties it will be noted that while the children of neither county have suffered, proper team-work is lacking in one county.

Alexander H. Stewart, serving as Secretary of the Indiana County Medical Society and as County Medical Director, reports that “Members of the Indiana County Medical Society cooperated splendidly, and the Indiana County Health Association made diphtheria immunization their program for the year 1926, doing a good work. Children from some of the rural schools walked as far as 4 miles to a center where the injections were being given”.

In Allegheny County, where to date the approximately 33,000 children have been immunized outside of the towns of Pittsburg, McKeesport, Clairton, and Dormont, 28 centers were established for inoculation. In the most successful campaigns the work was centered in the office of the school principal, and the success attained was proportionate to the activity manifested by the school official. The Director states that in most centers the physicians cooperated heartily, offering their services gratis.

The Medical Director of Blair County reports that in 1923, 3000 immunizations were given without charge. During 1924-25, physicians in private practice were to complete the work, but failed to do so, and there were few immunizations. In 1926-27, of all school children in Blair County, 75% were immunized free of charge.

Bradford County reports success from team-work by physicians, local newspaper, local hospital and Red Cross.

In Reynoldsville, Jefferson County, 974 children were given toxin-antitoxin in 1925. In 1926, these children were Schicked, and 128 who remained positive were revaccinated.

Members of the Lancaster County Medical Society volunteered as aids to medical school inspectors in giving toxin-antitoxin.

One county medical society officer reports that in portions of the county where state health nurses were giving immunizations, 50 to 60% of children were immunized. In 1 borough (same county) where the work was done by local physicians at the town's expense, 95% of school children and preschool children were immunized.

It is apparent from reports that in many counties immunization was administered by state health nurses.

Several counties report interest on the part of the public, but lack of funds to pay for physicians' services, this being notably true of rural counties with no large towns or villages.

Reports from most counties indicate that the Schick Test was not given before immunization.

Where possible the state health department collected 30c for the necessary toxin-antitoxin to complete each immunization.

One county society officer, in reporting, states that as his contribution as a member of his county medical society he gave toxin-antitoxin to 130 school children in his office free of charge, but that the nurses and other workers were paid.

In practically every county report the greatest of credit is given to the local newspapers, public school representatives, the state health representatives, and welfare organizations such as the Red Cross, Health Associations, Parent-Teacher Organizations, Women's Clubs and Social Clubs.

To the proper medical officers of the cities of Philadelphia and Pittsburg and to the Medical Director of the Bureau of Child Health of the State of Pennsylvania, J. Bruce McCreary, we addressed a letter asking the following questions: (1) What cooperation and assistance have you had from county medical societies and individual members in practice? (2) What assistance do you desire from them? (3) What constitutes the greatest single contribution to the success of your work in suppressing diphtheria?

From H. G. Benz, M.D., Superintendent of the Bureau of Child Welfare, city of Pittsburg, we learned that in that city the small force of workers available has been able to visit 109 of the 212 schools, Schicking 25,223 out of a total of 66,549 pupils enrolled. Of those tested, 12,404 have been immunized. Also, 1400 children of preschool age have been immunized and all children living in institutions throughout the city have been tested and immunized. Dr. Benz says: “There are many physicians in private practice who are doing immunization work, but not nearly to the extent to which it should be done. As to what constitutes the greatest single contribution toward success in suppressing diphtheria, I find it hard to choose between 2 things: first, the extensive culturing of all suspected diphtheritic prospects, which included sore throat, nasal discharge cases and contacts with any carrier or case of clinical diphtheria; second, the immunization of children in the susceptible ages from 6 months to 10 years. The Pittsburg Health Department issues temporary certificates showing number of doses of toxin-antitoxin which have been given after a negative Schick test from 1, 2 or 3 trials. I recommend more publicity regarding immunization, such publicity to be given by every method available, not sporadically but consistently.”

From Dr. Wilmer Krusen, Director of the Department of Health, Philadelphia, we learned that including public schools, parochial schools, and child-caring institutions, a total of 115,682 children were immunized prior to January 1, 1927. In addition to these, 22,702 children of preschool age were Schicked and immunized in the year 1926. Dr. Krusen states that “The Philadelphia County Medical Society has done excellent work. We feel that our departmental work has been successful in that the medical profession in Philadelphia has accepted and is putting into practice immunization against this disease. About 45% of the public school children have been immunized since such work was undertaken last year. The greatest single contribution to the success of our diphtheria work may be attributed to the publication in the Monthly Bulletin of the Department of Public Health of short, exact, and authoritative



information, thus enabling the medical profession to speak intelligently to their patients about this method of prevention, and enabling the individual physician to carry out this procedure himself."

I consider the following observations by Dr. McCreary based on reports received from every county as late as May 15, 1927, well worth recording: "The proportionate number of children applying for immunization is rapidly growing, and in practically all of the 23 second class school districts, the medical school inspector and nurses are adopting the plan of immunization of all new entrants. The greatest single contribution to the success of our work has been the full coöperation of local school authorities, together with the support we have received from the medical profession at large.

I feel safe in stating now that 90% of the physicians of Pennsylvania have adopted the immunization of children against diphtheria as a universal practice or urge it as they urge vaccination against small-pox. Five or 6 of the outstanding laboratories producing and selling toxin-antitoxin report a rapid increase in their sales to physicians in private practice and to pharmacists in Pennsylvania. I fully believe that by 1930 diphtheria will have been eliminated as an epidemic disease in our state."

From figures at hand I believe that since the beginning of the state-wide campaign in Pennsylvania, including the cities of Pittsburg and Philadelphia, 760,000 children, 65% of the desired total, have been immunized against diphtheria.

In 1921 there were 20,000 cases of diphtheria in Pennsylvania, with over 2000 deaths. In 1926 there were 8443 cases with 819 deaths, representing a saving of 1200 young lives in the year 1926 alone, largely due, no doubt, to the preventive benefits of toxin-antitoxin. To achieve ultimate success all concerned in the prevention of diphtheria (parents, physicians, public health and public school authorities) must learn that team-work is indispensable. Individual physicians need to remember that along with small-pox and typhoid fever, diphtheria is about to be relegated to the class of rare diseases, and they must continue to work unselfishly to that end. Laymen must develop the character required for application of the Golden Rule and a proper sense of value, as expressed in dollars, when receiving the benefits of preventive medicine.

Proud of the traditional devotion displayed by my Keystone State colleagues through this sickness prevention campaign in private and in public practice, and grateful to the 82 who have responded to my questionnaire, I confidently submit in turn to the representatives present from New York and New Jersey the challenge implied in the question—*Can you beat it?*

*Dr. J. B. Morrison:* Both New York and Pennsylvania are ahead of New Jersey in this preventive scheme in the treatment of diphtheria, but I think once our campaign is established and under way, our figures in 2 years will be comparable at least to those given us today. We are just forming an organization and we believe that success in New Jersey depends upon organization. The matter was brought up at a conference sometime ago and the question arose as to whether the state medical society should father this or whether it should be undertaken under the auspices of some other organization. The state medical society through its officers declined to be the prime mover for fear the question of "medical trust" might be

brought to bear and the public might be led to believe that we were expecting financial returns; so we urged the State Board of Health to inaugurate the organization and they asked the state medical society to participate. The State Board of Health, the State Health Officers' Association, the State Board of Education, the Women's Clubs, Parent-Teacher Organizations, Fraternal Organizations and the labor unions, and every society in New Jersey where we can expect coöperative action, have been invited to participate in this campaign. We interviewed the Governor and he now fathers the campaign, and I have a letter in my pocket from him saying that the state department will be behind this as far as it is in their power to be. He will address the next conference of these agencies and help us to whatever extent is possible.

We feel that the newly organized woman's auxiliary will be of considerable benefit to us in this movement, because through them we expect to get a house to house canvass and expect much from the influence that a mother who has her child to take care of can bring upon other mothers in inducing them to have their children submitted to the treatment.

We have in New Jersey a society comparable to your Board of State Aid and Charities in New York. They have more money than they can profitably spend in tuberculosis work and have offered to place a portion of it at our disposal. Probably we shall have to have voluntary contributions from other organizations as well.

The question of "State Medicine" came up here as it always does. The state health officers told us that they had found disinclination on the part of physicians to engage in any of these campaigns because they felt that they were aiding "State Medicine". It seems to us who have taken an active part in this campaign that unless we can induce all the physicians in the state to give their services, free if necessary, and if not, for a very small financial consideration, they themselves are forcing "State Medicine". We know that during the last 3 years Bills have been introduced at each Legislature asking permission for the State Board of Health to educate health doctors with a short term of study so that they may do the clinic work that the physicians should do. It shows the entrance of the wedge, that if the medical profession will not take the lead in this, if we cannot induce every member of the county societies to see the matter in its broad light, we shall fail. The young men who are going into public health work are going into it as a life work, with the enthusiasm of missionaries. Some of the lay organizations have unlimited resources behind them and are here to stay, and unless we direct and help them the work will be taken out of our hands. In New Jersey we are getting together a great deal of information and these papers and pamphlets, read today, will be published and presented to our committee when the program is put on its proper basis.

*Dr. Frank C. Hammond:* During the past winter the Philadelphia Board of Health carried on quite a campaign of immunization of children of school age. Not a few physicians in Philadelphia took umbrage to this, claiming that they were robbed of a certain amount of office work. The men in Philadelphia felt that they should be permitted to do the immunization. The action of the local board of health was that the attending physician should do it but in many instances the family took the children to the attending physician and he did not know about the immunization or was too lazy

to do it. We find that quite a few of the physicians know little about toxin-antitoxin. We tried to show them the proper procedure and after they learned the technic they took a different attitude. They said they were willing to let the State Board of Health do it, but on the other hand, the family often would prefer to have it done by their physician. The physicians also said that they received only so much for an office visit and did not see how they could afford to do an immunization including the use of toxin-antitoxin for that price. We suggested to them that the family buy the toxin-antitoxin and bring it with them for the injection. It is the same howl once made by many physicians in regard to vaccination. They did not see how they could do it for the office fee and provide the vaccine. We suggested then that the patient bring it with him, which they had not thought of. It often happens that the physicians do not know how to do these things and there is the necessity of telling them.

*Dr. Frank Overton:* This question ties up to the question of medical education in a most wonderful way. In my town the doctors in general have been rather hard boiled and have fallen down on the whole proposition. We have a health officer there who is an old man and who thought immunization should be done. The school nurses said, "We don't want the old fellow to do it". With another doctor, however, the health officer held 2 clinics and without any effort at publicity any more than the ordinary publicity that is going on in the counties in the state, the children simply flocked there in droves. The doctors, seeing this, agreed to take their turns in giving the immunization and it became a very popular thing although there was no special campaign to start the clinics.

*Chairman:* I should like to introduce Dr. Leonard Reading, President of the Lackawanna Medical Society, whom I invited to sit in with us today, and who has just arrived a few minutes ago.

*Dr. Leonard Reading:* The toxin-antitoxin campaign has gone over well in Lackawanna County. We had occasion to check up the number of children who have had a health survey, which has just been completed by Dr. Haven Emerson. Everybody was agreed that between 70 and 90% of the school children had been given toxin-antitoxin.

Now, I am going to take a crack at "State Medicine". If anybody here can tell me why any doctor should give his time and labor for this campaign any more than he should for vaccination, I should like to hear from him. We are going to hear about toxin-antitoxin today, and tomorrow and the next day something else will come along. You are giving to these people free service; you are making them believe they are entitled to it. I should say that 98.5% of the children who receive it in this valley are well able to pay for it. Why should we do it for nothing? I don't see the sense of all this charity stuff. Why should we give our services away any more than the grocer gives his sugar away? People really do not expect that.

*Dr. James E. Sadlier:* It seems to me that Dr. Lawrence's paper showing the conditions in our campaign and in the Schenectady campaign well exemplifies the situation. Others who have spoken, Dr. Donaldson especially, have outlined the fact that they had the same result. To some, it may seem wrong that the medical profession should have to give away its services. The medical profession has always been very generous and if a great thing can be put over and we can eliminate the deaths from diphtheria in these states I

think it is quite worth while for the medical profession to make the sacrifice. In Newburgh, it has been done successfully and in a way that will be an object lesson. I, furthermore, feel that the initial work having been done with this great mass of cases, that a great deal has been done toward educating the public.

I know among many physicians, 2 of the busiest men I can think of today. One has utilized the lay organizations of every kind in his district and he has as near 100% immunization as it is possible to get. He told me he had not received a dollar for it, that he did not want a dollar, that all he wanted was to see no more diphtheria in his district. Practicing beside him is another man who has no immunization cases. I think it is a great idea putting this over, even though the medical profession has to sacrifice financially.

*Dr. J. B. Morrison:* Dr. Sadlier has just spoken of the old man who without any direct financial remuneration succeeded in immunizing practically 100% of the children in his district, and of the other man, on the other hand, who has done nothing. Ten years from now, if the old doctor lives, he will receive thousands of dollars as a result of his work in immunizing those children. We must look beyond the dollar that is coming into the office at the moment for services rendered. If we do not, we are facing ruin. We know that in big industrial centers social workers are in this field to stay and have money for their support that we cannot command, and if we do not help them the Legislature will, and will give to the public "public health doctors" for the work that we have refused to do, and the medical profession will suffer financially for years and years to come.

*Dr. Joseph S. Lawrence (closing):* There isn't much that I can add to the long siege that I have already given you. I should say, however, that in New York State we are concentrating as much as we can now on the preschool child. Of course, a great many of the immunizations have been done on school children, but the dangerous age is between the years of 3 and 5, so we are now concentrating on those children. That necessitates the cooperation of the family physician; that is, it necessitates getting into the family, and the best way is through the family physician. The large clinics are also trying to bring in the preschool child.

As to the matter of fees, in most instances in New York State the physicians who are doing the private work are charging a fee for each inoculation, but in Schenectady they agreed among themselves to charge \$5 for a complete immunization of 1 child in a family, \$7 for 2 children in the same family, and \$9 for 3 children in the same family. They felt in that way they would be amply repaid, and it would encourage the work, which has proved to be the case. In the first month 24 physicians reported having done some immunizations. In the second month there were 34 reporting out of about 100 physicians. Of course, as mentioned by Dr. Hammond, there are a number of physicians who just will not do the work: they simply turn it over to the health officer.

With reference to free work, I think that has 2 phases. I believe Dr. Sadlier and Dr. Morrison are absolutely right, both from the humanitarian point of view and from that of ultimate results in dollars and cents; but I also believe that we ought to consider the problem of "State Medicine" in all these undertakings; state medicine meaning nothing more probably than a wide service in which the individual loses contact with the family physi-



cian. The Newburgh scheme was definitely criticised on that score. The physicians did volunteer their services—all but 3, and those 3 did not do it not because they didn't want to, but because they could not. I have been told that the office work of those physicians in Newburgh in regard to immunization has been greatly increased. Many think that they have already gotten full compensation for the services they gave free.

In 1 county the physicians are being paid 75c for an immunization, by the county health authorities. In that case the nurses collect a dozen or so of the children at some particular spot and the physician goes there and immunizes them and the fee practically amounts to an office call.

One thing I should like to bring up for your further consideration is the relation of these 2 papers. A new pamphlet we are having printed will be sent to all of you when it is available. In all the newspaper reports of immunization it is rare that the family physician is mentioned; it is usually some public organization or representative. That is perfectly natural. It is the business of the public health nurse to let it be known that she is making good to the public. Likewise the school or city physicians or health officers are using public funds and must state what they are doing for the money, whereas the private physician doesn't make any accounting for the fees he collects. But from the point of view of being fair to the public and to the private physician it seems to me that the publicity given to this work should show that a proportion of the immunization is done by the regular practicing physician in his line of duty and the other portion by the public agency. I think we should help those who are getting out publicity on these things to see that point of view. I do not believe they intentionally overlook the physician but it has the same effect. The average person talking about immunization thinks of it as a public health activity rather than a private physician's activity.

*Dr. H. W. Albertson:* I am sure we have all enjoyed Dr. Lawrence's paper and the many things he has brought out. I realize fully that there is a great deal to be stressed upon both sides of the question and it is an important and very timely subject. I believe if "State Medicine" comes it will be because of a great many weak-kneed sisters in the medical profession, not because the public wants state medicine, but because we have among us men who would just as leave practice state medicine and receive a few paltry dollars for their work, poorly done, as to practice decent medicine today, which they do not do and will not attempt.

After years of work in this line of endeavor regarding periodic health examinations I am convinced that the medical profession is not aroused, by any means, to their own interests in this very important matter. I am sorry that it is so but I sincerely believe that the greatest lesson we can take from this conference is to go back to our own fellow physicians and imbue them with some of the enthusiasm that comes to us from these many discussions.

I look with a great deal of interest at these 2 cities, Newburgh and Schenectady. I visited a week ago the Cambria County Medical Society and if you will, on some second Thursday night in any month of the year, visit that society you will know why they go ahead with such a proposition and accomplish what they do. They have some things that the medical societies throughout the United States may well take a lesson from. I am told

that they had a collection agency and that last year the loss to the profession was less than 2½%. What we need among the medical profession is team-work. There is no necessity of giving our services away. I am thoroughly in accord with the public health service activities. The public health service also needs our activities. There is charity to do and we are all willing to give graciously, but there are hundreds of people who are being pauperized simply because we do not educate them to the fact that it is a necessity for themselves and for their children to help eliminate disease for the good of the community. I believe that is where the medical profession is falling down very largely in this work.

*Dr. Albertson:* The next meeting place is now to be decided upon.

*Dr. Reik:* It was understood that there should be 3 meetings a year, the autumn one in New Jersey, the mid-winter one in New York, and the spring meeting in Pennsylvania. Dr. Conaway has extended an invitation to you to hold the next meeting in Atlantic City in October.

*Dr. Lawrence:* I move that the invitation be accepted and that the date be made as early in October as possible.

*Dr. Albertson:* The Medical Society of the State of Pennsylvania will meet in Pittsburg the first week in October and would ask that this be borne in mind in fixing the date.

*Dr. Morgan:* The members of the conference are on the exchange mailing list for the various publications. Dr. Lawrence has suggested sending out his publications with regard to the study of contrast of Newburgh and Schenectady, and I feel that we should put on the exchange mailing list this formal exchange of ideas.

I think there should be an expression of opinion as to whether or not this conference would permit the publication of papers that are presented here. For instance, Dr. Donaldson's paper is directly valuable to the members of the State Society of Pennsylvania and I would ask for permission to publish that at some future time. Does the conference agree that papers presented here shall be published elsewhere than in the transactions?

*Dr. Reik:* Regarding the publication of papers presented here, it has been the custom after each meeting to send a full stenographic report of the meetings, including the papers, or an abstract of them, to every member of the conference, and that, of course, takes them to the editors of the respective journals. Doesn't that sufficiently cover the situation?

*Dr. Morgan:* Suppose a paper in its entirety is presented here for the first time, would the conference agree to permit that paper to be published in detail in any journal?

*Dr. Reik:* It would naturally go to the 3 state journals.

*Dr. Morgan:* The abstract only would appear.

*Dr. Reik:* My recollection is that they have all been distributed in full heretofore.

*Dr. Morgan:* Yes, but they only reach a limited number. The transactions are abstracted in the 3 medical journals. What I want to get now is an expression of opinion as to the publication in detail of any paper.

*Dr. Reik:* I have no objection to their publication in full or in abstract.

*Dr. Overton:* That is a very pertinent question. Who has the first call on the paper?

*Dr. Reik:* I think the conference should have the first call on it.

*Dr. Overton:* Where shall the conference direct that it be published?

*Dr. Reik:* It comes to me first as the Secretary and is immediately sent regularly to you and to Dr. Hammond. What you have been doing is to publish them in abstract. I publish them in full. I think they should go to all of us for full publication in all of the journals, but I do not think a paper should be published anywhere before the conference members have had it on an equal basis.

*Dr. Overton:* I will not publish it in New York if it is published elsewhere first.

*Dr. Reik:* I always publish it immediately after the conference. You can do it at the same time I do, and have had the same opportunity to publish it.

*Dr. Morgan:* I think a paper should not be printed in any journal until after the transactions have been received by the editors. Then it is up to their discretion as to when it shall be printed. For instance, you are in a strategic position where you could publish some of the papers before the transactions are received.

*Dr. Reik:* That has not been done.

*Dr. Morgan:* I endorse Dr. Overton's suggestion that no paper shall be printed until after the transactions have been forwarded and received by all the editors.

*Dr. Reik:* That has been the custom.

*Dr. Morrison:* Why not instruct the editors to publish the paper in the first issue of the journal following distribution of the minutes of the conference?

*Dr. Donaldson:* Inasmuch as we must have different dates for submitting the material to the printer, might it not be well to instruct them all to publish it in the July Journal, or one on which they could all concentrate? I think that would solve the problem.

*Dr. Albertson:* I believe that can be safely left to the amicable arrangement of the 3 editors.

#### ADJOURNMENT

## Medical Book Reviews

(Royce Paddock, M.D., Department Director.)

GYNECOLOGIC DIAGNOSIS AND PATHOLOGY. By A. H. F. Barbour, M.D., and E. P. Watson, M.D. Third Ed. Cloth. Price \$4. Pp. 223, with 209 illust. New York. Wm. Wood and Co., 1927.

(Reviewed by F. H. Glazebrook, M.D., Morristown)

This is a concise and practical study of diagnostic methods and gynecologic pathology, based on the personal experience of the authors, obtained from material in the course of ordinary gynecologic work.

PART 1. Dealing with diagnosis, this gives practical suggestions for systematic investigation, including history taking, physical examination, and supplemental laboratory examinations of discharges and specimens. Attention is directed to the fact that gynecologic symptoms are rarely pathognomonic, but that certain signs or syndromes are sufficiently constant to suggest a diagnosis, or in any event, to demand thorough investigation. Thus, bleeding after the menopause suggests cancer of the uterus.

*History.* Great emphasis is placed on exact history investigation, a good plan being outlined under the following headings: (1) Origin. (2) Symptoms. (3) Menstrual function. (4) Reproductive function.

*Origin:* This should be carefully sought. An acute attack is often only an acute exacerbation of a chronic disorder which can be traced back to 1 of the 4 events in the sexual life of woman (puberty, marriage, pregnancy, menopause). Of 2000 cases in the Royal Infirmary at Edinburgh, nearly 50% could be traced to conception or childbirth.

*Symptoms:* The authors recognize 3 outstanding gynecologic symptoms, viz., pain, hemorrhage, and vaginal discharge.

Their plan of investigating these symptoms may be discerned from the following scheme:

#### Pain.

##### Seat.

Abdominal.

Pelvic.

Bearing down.

Referred (sacral region, thighs).

##### Character.

Periodic.

Constant.

Associated with urination, defecation, or intercourse.

##### Amount.

Personal equation.

Based on habit.

#### Hemorrhage.

##### Origin.

##### Character.

Menorrhagic (miscarriage, subinvolution).

Metrorrhagic (fibroid, cancer).

##### Amount.

Usual habit.

#### Vaginal Discharge.

##### Leucorrhea.

Slight: normal.

Excessive: catarrh (vagina, cervix or uterus).

##### Gonorrhea.

Urinary complications.

Malignancy (bloody, foul odor).

*Menstrual Function:* Fix normal habit as to age of onset; regularity 21, 28, 30 day cycle; duration. Abnormalities of menstruation are discussed under 3 headings: (1) Amenorrhea (scanty or absent flow), including that of physiologic origin, conditioned on pregnancy, lactation, or menopause, and that of pathologic origin from general or local cause. (2) Menorrhagia (profuse or prolonged menses) of sudden onset, as after abortion; and of gradual onset, from tumors, etc. (3) Dysmenorrhea (painful menstruation), with reference to its character, first occurrence, and time relation to the menstrual cycle.

*Reproductive Function:* It is important to record the period of time elapsing between pregnancies; the frequency of miscarriages and the period of gestation at which they occurred; the character of the labor, puerperium and involution.

*Physical Examination.* Special attention is called to the fact that while the gynecologist is primarily concerned with the local pelvic conditions, local examination must be supplemented by a careful investigation of the circulatory, digestive, urinary and nervous systems. The order of examination used by the authors is as follows:



Pelvic.

Inspection of genitals.  
Speculum inspection.  
Bimanual examination.  
Rectal and rectovaginal examination.  
Sound and curette.  
Examination of secretions and tissue.

Abdominal.

Inspection.  
Palpation, percussion.  
Tenderness. Tumor (consistency, origin).  
Free fluid.  
Auscultation.

General.

Using this general scheme there are very clear illustrations of the abdominal contour of different tumors, exudates, etc., also of positions and methods of making examinations, with a very full classification of conditions found in the anterior, posterior, and lateral fornices.

PART 2. This deals with gynecologic pathology and composes about four-fifths of the book. There are more than 200 illustrations, including photographic studies of gross specimens, microscopic sections, and diagrams, together with many colored reproductions of the living tissue. These are mostly original, being based on the author's personal observations in the operating room and laboratory.

The various conditions are studied in the order of their importance in gynecologic examination, consideration being given first to the uterus and appendages, and then the peritoneum, cellular tissue, vagina, vulva, etc. On the one hand, we have here a study of gynecologic disease from the standpoint of pathology and, on the other, from the clinical point of view. In this respect the work is unique and most instructive.

DISORDERS OF THE NOSE, THROAT AND EAR, PROBLEMS OF DEAFNESS. By Aaron Roth, M.D., Brooklyn, N. Y. Physicians and Surgeons Book Co., 1927.

(Reviewed by C. Coulter Charlton, M.D., Atl. City)

The purpose of this book is to familiarize nurses, teachers and laymen in a simple way with the important principles of rhinology, laryngology and otology. Special reference is made to focal infection, which is explained in a manner that the laymen can understand. The author's sketches of the mechanism of hearing are well drawn and will be instructive to those who have impaired hearing. The chapter on prevention of deafness is worth reading. It stresses the duty of the legislative, educational and medical authorities of the community, holding that the responsibilities for deaf persons must be shared by the government, the parents, the family physician, the teacher and the otologist.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE. J. J. R. McLeod. 5th Ed. Pp. 1054; 291 illustrations. St. Louis, C. V. Mosby Co., 1926. Price \$11.00.

In the fifth edition of this work, which first appeared in 1918, the authors announce that it has been revised "so that it may also be used as a textbook of physiology for students of medicine."

In the preface to the first edition it was stated that "the work is not intended to be a substitute, either for the regular textbooks in physiology, or for those in functional pathology. . . . it deals with

the present-day knowledge of human physiology in so far as this can be used in a general way to advance the understanding of disease."

This interesting development towards a goal not first intended makes it evident that the authors' original purpose to put out a work which could be applied in practical medicine has been found good by those who teach. This seems merely a part of the general tendency to weld two subjects previously distinct: the sciences which underlie medicine, and clinical teaching; and is further evidence of their success in this direction.

The present completely revised edition has been especially expanded in the sections on the neuromuscular system and on the physiology of the special senses. The book is divided into ten parts: the physicochemical basis of physiologic processes, the blood and lymph, the neuromuscular system, the special senses, the circulation of the blood, respiration, digestion, excretion of urine, metabolism, and the ductless glands. The chapters on carbohydrate metabolism and insulin are especially interesting in view of the association of the original author with this work.

This book is now considered by many as the standard in its field. In spite of its considerable size and compendious scope it is definitely aimed at simplification of the art of medicine by better understanding of the underlying principles of normal function and its perversions. That such understanding is not attainable without long and hard study the medical student is partly aware. It would seem that the main contribution of this book for the student and practitioner is that it provides for the reader who will stick with it a far greater opportunity of use of the products of his labors than the earlier works. Some of these are remembered by the reader as more academic and far less interesting. And this seems mainly due to the change of attitude.

THE SPECIALITIES IN GENERAL PRACTICE. Francis W. Palfrey. Octavo of 748 pages. Philadelphia and London. W. B. Saunders Company, 1927. Cloth, \$6.50 net.

(Reviewed by Dr. G. H. Lathrope, Newark)

Dr. Palfrey is to be congratulated on his conception and execution of a work which ought to be very useful to the man doing general practice in town or country, and likewise of distinct value to the internist and the general surgeon as a ready reference volume. The man who finds nothing of particular value in this book is in a class by himself.

The work is to be commended further on the admirable collaboration whereby useless repetition is avoided.

In the introduction Dr. Palfrey states its purpose: to describe correct treatment in the more urgent conditions in which prompt attention is of the greatest importance and where insufficient knowledge on the part of the practitioner may be dangerous; and secondarily, to instruct the practitioner so that he may intelligently refer patients to the specialist for treatment. Careful reading of the book will reveal how well, in the main, this purpose is fulfilled, and if the reader is not looking for exhaustive treatises with prolonged discussion of mooted points on etiology, pathogenesis and treatment, he will experience no disappointment.

Criticism of various small points here and there would be meticulous. The work as a whole is too well carried out. One might wish perhaps

that a section on Neurology could be added which would explain the important points of a neurological examination so that the practitioner might learn not only for what signs to look, but also how to interpret these signs anatomically when he finds them. This knowledge might bring such things as spinal cord tumors a little earlier into the hands of the neurological surgeon—to cite only one advantage. If space were to be conserved for this purpose the chapter on surgery might well be abbreviated.

Chapter I on Dermatology, gives as clear an exposition of the high spots in this field as may be found in any brochure of an hundred pages. The classification employed is based on similarity of signs and symptoms, is simple and should appeal to the practical minded physician.

Gento-urinary surgery is introduced by a discussion of Sex Hygiene as matter of fact and sensible as any, short or long, the reviewer has seen. The brief sections on hematuria and abdominal pain of renal origin are clear and valuable.

The chapter on Gynecology is marked by good sense, moderation, and the refusal to recommend tampons and douches as cures for every pelvic ill. Neoplastic conditions are thoughtfully handled with a stress upon means for early recognition.

In discussing heart disease in pregnancy (Chapter on Obstetrics) stress should be laid on heart muscle efficiency rather than on the *valves*, as is done here. A suggestion for the next edition of this book is to add a few remarks in this Chapter on the subject of Birth Control, a topic in sore need just now of some sane, temperate discussion, and one toward which the attitude of our obstetricians and gynecologists is little known.

Chapters on the eye, ear, nose and throat, all contain much practical information. One would like clearer indications given for paracentesis in acute middle ear infection, especially as this procedure must often be performed by the general practitioner.

Thoughtful discussion of the premature infant, and remarks on the diet and hygiene of the nursing mother, make the chapter on Pediatrics a valuable supplement to that on Obstetrics. Psychiatry is a very understandable section, its diction being quite within the scope of the ordinary reader. It is a section which will repay careful study on the part of the practitioner.

The book is better worth \$6.50 than many we already have in our libraries.

## County Society Reports

### HUNTERDON COUNTY

L. T. Salmon, M.D., Reporter

The mid-summer meeting of the Hunterdon County Medical Society was held at the Glen Gardner Sanitarium on July 26, the attendance being about 50% of the membership. As guests the society had Drs. Walt P. Conaway, J. B. Morrison, Henry O. Reik and Harry R. North.

The President of the state society, Dr. Conaway, outlined some of the activities and objects of the state society and requested the co-operation of the society of Hunterdon County in these pursuits. His particular appeal was for the organization of a woman's auxiliary society in the county.

Dr. J. B. Morrison detailed the change in or-

ganization of the state society and requested the members to make suggestions for perfection of plans of work of the state society. He further stressed the woman's auxiliary movement and the antidiphtheritic propaganda and concluded by stating that there would likely be an increase in the state ducs in the near future; this last announcement was further discussed by Dr. Harry R. North, of Trenton, who gave the reasons why this increase must be expected.

Dr. Henry O. Reik appealed for help in conjunction with the Welfare Committee work and hastily left the meeting in order that he might catch a boat for Europe.

Dr. G. N. J. Sommer, of Trenton, thanked the society for their loyalty in supporting him in his recent election to the Third Vice-Presidency of the state society, and a little later in the session made some remarks upon ischio-rectal abscess surgery.

Dr. P. C. Young's death during May was reported by the president, and the secretary was ordered to make due record of his death. Dr. A. Louis Gramsch was elected a member of the society. It was decided that the next meeting should be an informal one with the general subject of venereal diseases as a nucleus of discussion, and that Dr. Casselman should be asked to send a representative or come himself. One of the members, Dr. Theodore B. Fulper, of Hampton, absent on account of illness, was voted an expression of sympathy together with some remembrance from the society as a whole.

The principal address of the day was made by Dr. S. B. English who mapped out the early symptoms of tuberculosis and detailed the most modern treatment for each one, in turn. After a vote of thanks to Dr. English for his hospitality and his paper, the society adjourned.

## In Lighter Vein

### Dark Dangers

The stingy farmer was scoring the hired man for carrying a lighted lantern to call on his best girl.

"The idea," he exclaimed, "when I was courtin' I never carried no lantern. I went in the dark."

"Yes," said the hired man sadly, "and look what you got."

### Heart Balm Asked

In Japan you can tell if a girl is single or married by looking at her hair. In America you can't even tell if it's a girl!—Judge.

### Psychological Spot

"Why are you scratching yourself, Doris?"

"'Cos I'm the only one that knows where I itch."—The Humorist (London).

### Life's Little Trials

"Pa, what's the difference between a hill and a pill?"

"I don't know, my son, unless it's that a hill is high and a pill is round—is that it?"

"Naw! A hill is hard to get up and a pill is hard to get down."—Boston Transcript.



## AMERICAN COLLEGE OF SURGEONS, SEVENTEENTH CLINICAL CONGRESS.

The American College of Surgeons will hold the seventeenth Clinical Congress in Detroit, October 3-7. Headquarters will be at the Book-Cadillac and Statler hotels, and the meetings will be held at the Statler Hotel and Orchestra Hall. The Hospital Standardization Conference will extend from Monday morning to Thursday afternoon and will include a discussion of hospital and nursing problems and hospital demonstrations. Monday evening's program will include an address of welcome by the local chairman, the address of the retiring President, the inaugural address of the new President, and the John B. Murphy oration. Clinics in general surgery will be held in the Detroit hospital each morning from Tuesday to Friday, and in Eye, Ear, Nose and Throat work the same afternoons. Clinics will also be held at University Hospital, Ann Arbor, Tuesday to Thursday. On Tuesday and Wednesday mornings and afternoons, and on Thursday morning, clinical demonstrations will be held at the Statler Hotel (mornings) and Orchestra Hall (afternoons). On Thursday afternoon the annual meeting of the Governors and Fellows will be followed by a cancer symposium. On Friday afternoon there will be a symposium on traumatic surgery, to be participated in by leaders in industry, labor, indemnity organizations, and the medical profession. On Tuesday evening the program will take the form of a celebration of the Lister Centennial. On Thursday evening there will be a large Community Health meeting in the Masonic Temple, and on Friday evening the Annual Convocation of the College. Other outstanding features will be the exhibits. In addition to the commercial exhibits there will be a replica of the Lister exhibit at the Wellcome Museum of Natural History, London, including Lister's operating rooms and hospital wards. The Departments of Hospital Activities, of Literary Research, and of Clinical Research of the College will also present exhibits. Among the foreign guests will be Sir John Bland Sutton, England; J. M. Munro Kerr, Scotland; Gordon Craig, Australia; Gustaf E. Essen-Moller, Sweden; S. A. Gammeltoft, Denmark. The retiring President is W. W. Chipman, Montreal, and the President to be inaugurated, George David Stewart, New York. The Lister oration will be delivered by W. W. Keen, Philadelphia. The chairman of the Detroit Committee on Arrangements is Alexander W. Blain.

## Personals.

On June 12, 1927, Miss Lillian Schwartz, of New Brunswick, and Dr. Karl Rothschild, of 49 Bayard Street, New Brunswick, were married at the home of the bride's parents, Mr. and Mrs. Herman Schwartz. Rabbi Brenner, of Perth Amboy, officiating.

The marriage of Miss Anne Lardner Moore, daughter of Mrs. Nicholas Gibbon Moore, of Mooresville, N. C., to Dr. James Bittick Shannon, of 11 Seymour Street, Montclair, was celebrated on August 16 in the First Presbyterian Church of Mooresville, and was followed by a reception at the home of the bride. Dr. Shannon and his bride were expected back in Montclair about September 1.

Miss Marjorie Davey, daughter of Dr. and Mrs. T. N. Davey, of 41 West Thirty-third Street, Bayonne, became the bride of Frederick S. Crane Jr., son of Mr. and Mrs. Frederick S. Crane of South Orange, at First Reformed Church on July 23. The ceremony was performed by Rev. George J. Becker, the pastor. A reception followed at the home of the bride's parents.

Dr. Fred W. Hagney, of 699 Elizabeth Avenue, Newark, with his wife, is making an extended and unusual motor tour by land and sea, covering Long Island and the Sound, Cape Cod, Boston, steamship to Yarmouth, Nova Scotia, Halifax, the Evangeline country, then again to Yarmouth and boat to Boston, and by devious routes back to Newark. They report the country and its people delightful, but traffic is light. On one run of 140 miles they only met seven automobiles. Incidentally they noted that Nova Scotia is hopelessly "dry".

Dr. and Mrs. A. B. Abrams, of 668 Clinton Avenue, Newark, spent two weeks of August in a trip to Mackinac Island, and a cruise of the Great Lakes.

Dr. William R. Ward, of Chancellor Avenue, Newark, has returned from a trip through Pennsylvania, West Virginia and Kentucky.

Dr. and Mrs. Charles A. Schneider and their daughter, Miss Dorothy Schneider, of 694 Clinton Avenue, Newark, have completed a motor trip through Maine.

Dr. and Mrs. Bart M. James, of Bunardsville, have returned from a visit in Mauch Chunk and Wilkes-Barre, Pa.

Dr. and Mrs. Caldwell Morrison and their daughter, Miss Jean Morrison, of 379 Seventh Avenue, Newark, spent three weeks in August motoring to Gloucester, Mass., for a visit with another daughter, Mrs. Elizabeth M. Osgood.

Dr. and Mrs. Linus W. Bagg and their daughter, Miss Barbara Bagg, of Montclair and Newark, have been rusticated in the Canadian Rockies. They stayed at the Banff Spring Hotel, Banff, Alberta.

Dr. and Mrs. Louis Schneider, of 874 South Thirteenth Street, Newark, have returned from a motor trip through Vermont and Maine, after having spent the latter days of July with their son Dick at Camp Quinipet, Shelter Island Heights, Long Island.

Dr. Winifred Banks, of East Orange, and her daughters, Mrs. Joseph F. Kelly, of Fort Myers, Fla., and Miss Claribel Banks, have been staying at Buck Hills, Pa.

Dr. Richard H. Dieffenbach, Jr., of 570 Mt. Prospect Avenue, Newark, with Mrs. Dieffenbach and their daughter, Miss Anne Dieffenbach, were at Blue Mountain Lake in the Adirondacks during August.

Dr. and Mrs. J. Bennett Morrison, of 66 Milford Avenue, Newark, Dr. Morrison's brother and sister-in-law, Mr. and Mrs. S. A. Morrison, of Glen Ridge, and Mr. and Mrs. Oscar J. Wirtz, of 21 Prospect Street, East Orange, left home early in August for Boston, and then by boat to Portland, Me. They spent the remainder of the month visiting St. Johns, N. B., and Halifax, N. S., returning about Labor Day.

Dr. G. B. Griffin and his cousin, Miss Josephine Griffin, of Buffalo, are visiting the former's brother-in-law and sister, Dr. and Mrs. John H. Hermann, of South Center Street, Orange. Dr. and Mrs. Hermann have returned from a visit

with their son John H. Hermann Jr., who is at Camp Wapello, Friendship, Me., for the season. They preceded their visit to Haine by a tour of Montreal and Quebec.

Dr. and Mrs. Harold A. Murray and family, of 624 Mt. Prospect Avenue, Newark, left for Avon, where they will remain until September 15. Dr. Murray, however, will visit the city during the month.

Dr. Sarah M. Edwards, of 207 Summer Avenue, Newark, accompanied by her niece, Miss Sally Bullen, of Paterson, and Miss Mary L. Davis, of the Summer Avenue address, are at Pocono Manor, Pa., to stay until some time in September.

Dr. and Mrs. Bernard H. Greenfield, of 691 Clinton Avenue, Newark, and Dr. and Mrs. Lewis L. Davidson, of the Hotel Riviera, left Newark by motor for the Catskill Mountain House, Catskill, N. Y., about August 15 for a short vacation.

Dr. and Mrs. Clement Morris, of 75 Washington Avenue, Newark, have been spending the week-ends at the New Monterey, Asbury Park.

Dr. and Mrs. William Petry and their daughter, Miss Beatrice Petry, of 109 Treacy Avenue, Newark, left early in August for Oregon, to visit Dr. Petry's brother, Paul Petry. They planned to return about September 1. Mr. and Mrs. Paul Petry are on the faculty of music at the state college in Corvallis, Ore.

Dr. and Mrs. Richard H. Staehle and their two sons, of 34 Lyons Avenue, Newark, spent the month of August at Belmar, where they remained until after Labor Day.

Dr. John K. Adams, of 3 Prospect Street, East Orange, has returned home from the Hospital and Home for Crippled Children, this city, where one of his fingers was amputated to check an infection in his right hand. Dr. Adams is a member of the hospital's staff. The physician contracted the infection while treating a patient. He was attended by Dr. John F. Hagerty of Newark.

Dr. and Mrs. John B. Casale and family, of 159 Clifton Avenue, Newark, have been spending several weeks at Atlantic City.

Dr. and Mrs. Franklin W. Rice, of 184 South Street, Morristown, returned from Europe on the Mauretania, August 12, after visiting Italy, France, Switzerland and England.

Dr. and Mrs. John C. Medd, of 25 Curtis Place, Maplewood, sailed for Scotland in August.

Dr. F. R. Haussling, of 661 High Street, Newark, has returned from a two-week vacation at the Berkeley-Carteret, Asbury Park.

Dr. and Mrs. Milton Ireland and Dr. and Mrs. E. H. Harvey, of Atlantic City, have returned to the resort after spending the past three months in Europe. Dr. and Mrs. Ireland had as their guests for the remainder of the summer, Mrs. Ireland's parents, Mr. and Mrs. Horace M. Shetzline, of Philadelphia.

Dr. and Mrs. Archibald Mercer, of 31 Washington Street, Newark, has left for York Harbor, Me., accompanied by Mrs. Mercer's sister, Miss Mary F. Campbell, of Morristown, who has been in Edgartown, Mass. From Maine they will go to the White Mountains for a stay.

Dr. and Mrs. Jasper Coghlan, of 540 Parker Street, Newark, sailed for Europe on July 27, on the Franconia. They were accompanied by Mrs. William T. Coghlan, mother of Dr. Coghlan, and by William J. Coghlan, of New York. The group will travel in Great Britain and on the continent, and will return October 1.

Dr. and Mrs. George J. Holmes, of 437 Parker Street, Newark, left the middle of August for a two-week motor trip through New Hampshire and Maine. They were accompanied by Mrs. Joseph Chamberlain, mother of Mrs. Holmes, Miss Mary O. Holmes, their daughter, returned September 4 after spending the summer abroad.

Dr. and Mrs. Jean F. Wolfs, of 3 Leslie Street, Newark, spent two weeks of August in Meredith, N. H. From there they will go to the Adirondacks for a fortnight.

Dr. and Mrs. Henry G. Holler, of 234 Montclair Avenue, Newark, have left home for their camp, Sunset Lodge, on Lake Winnepesaukee. They were accompanied by their daughter, Miss Helen Holler, and remained until after Labor Day.

Dr. and Mrs. Albert S. Harden, of 540 Warren Street, Newark, have returned from a nine-week trip abroad, during which the former visited a number of surgical clinics. They traveled in England, Scotland, Holland, Belgium, Norway, Sweden, Denmark, Germany and France.

Dr. and Mrs. James T. Hanan, of 11 the Crescent, Montclair, are home again from Dennis, Mass., where they spent two weeks.

Mrs. Edward Zen Hawkes, of 97 Heller Parkway, Newark, left about August 1 to spend a month in the White Mountains. Her daughter, Miss Jane Hawkes, went about the same time to Alexandria, Minn. Before returning she will visit relatives in Minneapolis and St. Paul, joining her sister, Miss Katherine Hawkes who is there now. Miss Jane is expecting to enter Smith College in the fall.

Several parties are being planned for Mrs. J. Sherman Kelley, of Fort Myers, Fla., who arrived to spend the summer with her parents and sister, Dr. Charles W. Banks, Dr. Winifred D. Banks and Miss Claribelle Banks, of North Munn Avenue and Main Street, East Orange. Dr. Winifred Banks has returned from a months vacation at Lake Muskoka, Canada.

Dr. and Mrs. Frederick A. Alling, of 402 Highland Avenue, Newark, left in the latter part of August for Oteora Park, N. Y., where they spent about ten days. Mrs. Francis Child, of 600 Mt. Prospect Avenue, Newark, a sister of Dr. Alling and his mother, Mrs. Frederick A. Alling, are spending the season there.

Dr. S. Eugene Dalton, of 124 S. Illinois Avenue, Atlantic City, has been appointed assistant police surgeon for the Ventnor police by Mayor Carleton Adams and was sworn into office recently by City Clerk Charles E. Reppetto. This appointment will bring the municipal doctors now serving up to three: Drs. Thomas Youngman, S. Fox and S. E. Dalton.

Dr. Robert M. Grier, of Pleasantville, well known physician and sportsman, headed a fishing party in Great Bay recently. One of the members of the party, whose luck, he said, was against him, declared that the physician made the largest catch in the party. However, he refused to give the number of fish caught by Dr. Grier or by the entire party.

Dr. H. Alton Schachter and family, of 21 Johnson Avenue, Newark, left home on a motor trip to Ontario by way of Pennsylvania and New York State. Dr. Schachter arrived home about Labor Day. He is neurologist to Newark Beth Israel Hospital and medical inspector of the Essex County Boys' Vocational Schools.



# FAIR OAKS

SUMMIT, N. J.

A Sanatorium well equipped with the means for Physical Therapeutics (baths, electricity, etc.), and especially designed for the care and treatment of organic and functional nervous diseases, exhaustion states and cases requiring rest, hygienic, dietetic and occupational therapy.

Insane and tubercular cases are not accepted.

Telephone 143

**DR. T. P. PROUT**  
Summit, N. J.

Continued from page 556.

Dr. Alvin Liphard of Hillside has been on an automobile tour of Canada. He returned after Labor Day.

Mrs. Richard J. Brown and her son, Richard J. Brown Jr., of 211 Roseville Avenue, Newark, have gone to their summer home, Hemlock Lodge, Ridgefield, Conn., to stay until after Labor Day.

Dr. and Mrs. Edward L. Burns, of 535 Mt. Prospect Avenue, Newark, returned from a month's trip to Boston and Maine.

Dr. and Mrs. Royal A. Schaaf, of 19 Bathgate Place, Newark, have been entertaining at their summer home, Oakhurst, Lake Hopatcong. Mrs. Edward M. Minion, of 730 Ridge Street, Newark, and Miss Lucille and Clara Zahn of Summit.

The engagement of Miss Katharine Reynolds Cooke, daughter of Dr. and Mrs. William Harvey Cooke, of 303 Main Street, East Orange, and granddaughter of the late James E. Reynolds of that city, to Paul N. Garrigue, son of Mr. and Mrs. Newton Garrigue of Scarsdale, N. Y., has been announced.

Dr. E. H. Snavelly, superintendent of the City Hospital, has spent several week-ends as guest of Mr. and Mrs. Michael J. Quigley, of 258 Montclair Avenue, who are at Belmar. Mrs. Snavelly spent two weeks in Baltimore and Dr. Snavelly joined her there before her return.

Dr. and Mrs. J. Ryan, of Passaic, were among patrons recently registered at the Castle Edward, Lake Hopatcong.

Continued from page XX.

cerations of the cornea, cataracts, gonorrheal conjunctivitis, progressive myopia, etc. The federal authorities reported the preparation to be a slightly turbid liquid, having a winelike odor, and containing alcohol, potash, zinc sulphate and tannin. The Post Office Department issued a fraud order which will prevent the exploitation of this nostrum through the mails. (Jour. A. M. A., June 4, 1927, p. 1831.)

The Florazona Fraud.—The Postmaster General has issued a fraud order against the Florazona Corporation, New York City, debarring it from the use of the mails. The "Corporation" exploited Florazona, which was a bath powder claimed to bring about reduction of weight. The federal chemists found the preparation to be essentially sodium thiosulphate, with a small amount of baking soda and a trace of iodides and perfume. It was shown that the package of Florazona, which sold for \$3.50, could be manufactured for about 17½ cents. As is common in the advertising of fat-cure swindles, the advertisements for Florazona stressed the claim that, when using the preparation, it was unnecessary to exercise or to diet. Yet, as is also usual in the sale of such fakes, after the purchaser had paid her money, she found that dieting was suggested. (Jour. A. M. A., June 11, 1927, p. 1920.)

The Cunningham Tank Treatment.—For some eight years Dr. O. J. Cunningham of Kansas City, Mo., has been treating certain conditions by putting patients in a tank, under air pressure vary-

Continued on page XXIX.

## AURORA HEALTH FARM

**Mendham Road, MORRISTOWN, NEW JERSEY**

Beautiful country; elevation 700 ft., only one hour from New York. Open all year. Diet, electro-therapy and hydro-therapy. Personal medical supervision. Suitable for convalescence, compensated heart lesions, hypertension, rheumatism, diabetes, anemia, etc. Homelike atmosphere. No bed-ridden, contagious or mental cases.

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## "Interpines"

GOSHEN, N. Y.

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## Ethical - Reliable - Scientific

Disorders of the Nervous System

**BEAUTIFUL      QUIET      HOMELIKE      WRITE FOR BOOKLET**

Dr. F. W. Seward, Supt.      Dr. C. A. Potter      Dr. E. A. Scott

The Joy Beans Laboratories Fraud.—One Frank Beland of Cairo, Illinois, exploited an indecent piece of quackery under such trade names as "Joy Beans Laboratories" and "Beland Laboratories", selling a preparation called "Joy Beans" as a sexual tonic. Beland had no medical or professional training; his nostrum was put up for him by Eli Lilly and Company, Indianapolis. Beland's exploitation of this aphrodisiac was found fraudulent by the post office authorities and was barred from the use of the mails. (Jour. A. M. A., July 16, 1927, p. 225).

### Family Likeness

Dabson—"He claims to be related to you and says he can prove it."

Dobson—"The man's a fool."

Dabson—"That may be a mere coincidence."—Credited to "Exchange" by the Purple Cow.

The papers print pictures of our modern college students engaged in many different activities, but the odd fact is that we can not recall ever having seen a photograph of one with a book in his hand.—Ohio State Journal.



## CLASSIFIED : ADVERTISEMENTS

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4 Cents per word; Minimum Charge, \$1.00  
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Forms Close 26th of the Month.

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WANTED—Salaried appointments for Class A Physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

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MEDICAL SUBJECTS prepared to specifications —Speeches, special articles, papers. Manuscripts revised and edited. Prompt, scholarly service. Authors Research Bureau, 500 Fifth Avenue, New York City.

Continued from page XXIII.

ing from 10 to 50 pounds to the square inch above ordinary atmospheric pressure. Patients are kept in the tank from a few hours to a month. Dr. Cunningham's thesis is that diabetes mellitus, pernicious anemia and carcinoma are due to pathogenic bacteria of the anaerobic type, and that the oxygen content of the tissues is greatly increased when the patients are put in the tank containing the compressed air. It does not appear that Dr. Cunningham's observations have been confirmed. There is reason to believe that Dr. Cunningham has allowed enthusiasm to run away with judgment. (Jour. A. M. A., June 11, 1927, p. 1921.)

Ergosterol. — The present evidence indicates that ergosterol is the precursor of vitamin D, that is, the parent substance from which vitamin D is formed. It is probable that the activity of cholesterol produced by irradiation, is due to the presence of ergosterol in cholesterol. The biologic tests with irradiated ergosterol have been astounding. A daily dose of 0.0001 mg. of irradiated ergosterol has cured and prevented rickets in rats kept on a rachitogenic diet. Irradiated ergosterol is the most potent antirachitic substance known, 5 mg. being equivalent to approximately 1 liter of a good cod liver oil. (Jour. A. M. A., June 18, 1927, p. 1969.)

Kerosene. — Kerosene is a weak antiseptic and parasiticide and irritant to the skin. Therefore: It can be used for parasitic affections of the scalp. It is of some use for seborrheic dermatitis of the scalp and, if it has any effect in preventing the outfall of hair, it is presumably due to its irritating—stimulating—effect on the skin. But it does all these things in a crude, disagreeable way. All of them can be done more efficiently and much more accurately with drugs of definite composition. Its vogue as a hair tonic and hair which has come down through the millenniums from our barbarous ancestors, that the efficiency of drugs is in proportion to their disagreeableness. (Jour. A. M. A., June 25, 1927, p. 2048.)

(Established 1916)

### "Bright Side" Sanitarium

for the treatment and care of  
INCURABLES, CHRONIC DISEASES  
AND GENERAL INVALIDISM

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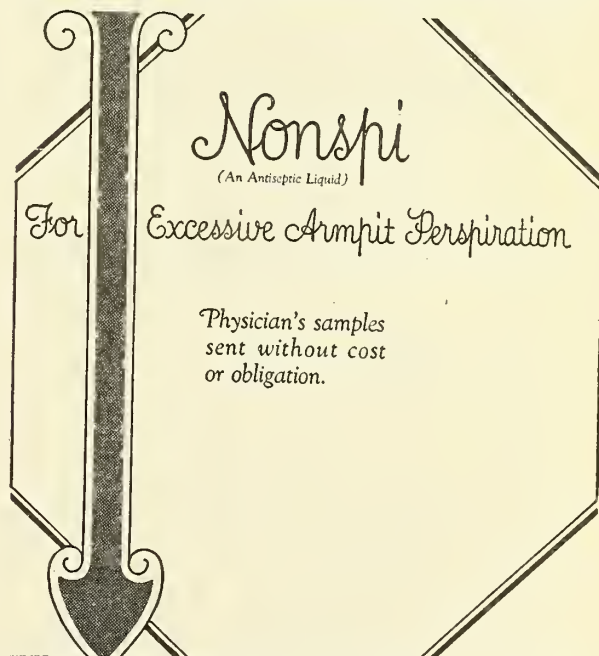
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Situated amidst beautiful surroundings, commanding superb views, several acres of ground, our own farm products. Offers all the comforts of a quiet and reserved home combined with the special care and treatment required in each individual case. Private rooms and small wards. Rates moderate. Thirty-five minutes from New York City (West 125th street), half a block from Hudson River trolley line.

MAX T. BLOCHWITZ, M. Dir.

JOS. VAN DYKE, M.D., Cons. Physician

The Assimilation of Iron.—Investigations have been published, which the investigators believe to indicate that vitamin E is a substance specifically related to iron assimilation in a manner comparable to the relation of vitamin D to phosphorus and calcium metabolism. On this basis the use of ferric citrate and a fat having the properties of wheat germ oil—a potent source of vitamin E—is suggested as a logical basis for the treatment of secondary anemias. Since liver is rich in iron and in vitamin E this may be an explanation for the reported value of liver in the treatment of pernicious anemia. (Jour. A. M. A., April 23, 1927, p. 1323.)



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Physician's samples  
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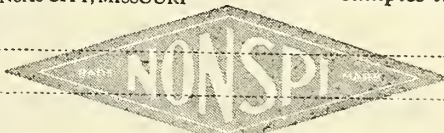
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# PRESCRIPTION PHARMACISTS

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ORANGE, N. J.....	Mosler, Abram, 283 Main st.....	1030 Orange
PATERSON, N. J.....	Neer's Drug Store, 127 Broadway....	2266 Paterson

Continued from page XXVIII.

proper selection of common foods quite as well as by the use of special foods. He states that many of the latter serve useful purposes but are expensive. The utilization of common foods is of increasing interest to the physician and to the patient. (Jour. A. M. A., July 30, 1927, p. 376.)

Little Lucy: What is the difference between eccentricity and insanity?

Mother: Merely a difference of dollars and cents, my child.—The Savant.

### Drug Store Needs.

"You say you are a duly qualified and registered drug clerk?"

"Yes, sir. I can compound prescriptions and cook."

"One of the old-fashioned kind, hey? What I need now is a radio mechanic."

### Agreement That Pleases

A woman always credits another woman with having excellent judgment when they both dislike the same person.—Chicago News.

# Erythrol Tetranitrate Merck

Literature on request

Chart shows relative reduction of pulse tension produced by

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2. Nitroglycerin
3. Sodium Nitrite
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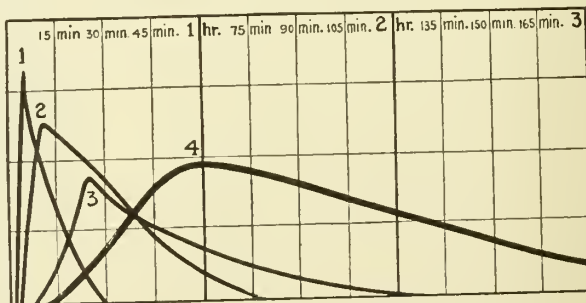
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Tablets— $\frac{1}{4}$  grn. Bottles of 50

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# Journal of The Medical Society of New Jersey

Published on  
the First Day of Every Month



Under the Direction  
of the Committee on Publication

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Single Copies, 30 Cents

## THE CENTENARY OF LORD LISTER

H. L. HARLEY, M.D.,  
Atlantic City, N. J.

On this, the one-hundredth anniversary of the birth of Lord Lister, not the English-speaking world only, but the entire civilized world is paying homage to his memory, from the platform and through the press. It is good that this justice is being done, for he was one of the world's civilizers. It may seem, to a busy world, that holidays and anniversaries occur with tiresome frequency but we would be ungrateful indeed if we failed to pause a moment, and uncover, in honor of this great doctor who gave us the advantages of modern surgery.

To the younger members of the profession, to those of us who were trained to think in terms of aseptic surgery, it comes as almost a surprise when we are made to realize that such a short time ago as 50 years, Lister was still fighting a conservative profession to have it accept his discoveries. And it is particularly fitting and beneficial that the layman should join the medical profession in honoring Lord Lister, for it was truly said of him before he died that his discovery of the use of antiseptics in surgery had saved more lives than all the wars of the Nineteenth Century had destroyed.

Right here allow me to interpolate a related idea: Have you ever thought how silly it is, how inconsistent, that a great profession like medicine should succeed in its matchless endeavor to save life and add years to the

span of human existence, only to have those lives snuffed out by millions, in war? It is an interesting subject to think about just now, 10 years after we went into a war to end all war and at a moment when we are steadily marching toward another.

But let us return to Lord Lister, one of the heroes of peace. He was born Joseph Lister, in Upton, Essex, England, April 5, 1827. His family were Quakers and he never ceased to use the "plain speech" of the Friends, when communicating with his family and more intimate acquaintances. His father, a successful merchant and self-educated man was a scientist of no mean accomplishment. The elder Lister gained a Fellowship in the Royal Society for his contributions to the science of optics. So the boy Joseph grew up in an atmosphere of the laboratory and work-bench which he put to fruitful use in the many surgical instruments and devices he invented in later years.

After a good preliminary education he entered University College, London, at the age of 17 years, where he attained his B. A., and where in 1848 began the study of medicine. He became house surgeon at University College Hospital, and in 1852 acquired his Bachelor's Degree in Medicine as well as his Fellowship in the Royal College of Surgeons.

The best medical center of Great Britain of that time was not in the great city of London but in the small city of Edinburgh. So the year after his graduation Lister went to Edinburgh carrying letters of introduction to the leading surgeon and teacher, James Syme. Lister had expected to stay for a

month of observation, but a warm and lasting friendship grew up between these two men despite the difference in their ages, and Lister remained in Scotland for 23 years. For the first year he was resident house surgeon to the Royal Infirmary, and later became Assistant Surgeon. In the meantime he had married Miss Agnes Syme, the daughter of his beloved master. They took an extensive tour of the Continent, visiting the principal seats of medical learning. The marriage was a most fortunate one, for everything we hear of Mrs. Lister is evidence that she was possessed of a spirit as fine as her husband's. In November 1856 they were back to Edinburgh and work. Private practice, his duties as Assistant Surgeon to the Royal Infirmary, and in between, the unceasing investigation of the cause of inflammation, occupied his next 4 years.

In 1860, at the age of 33, he applied for and obtained appointment by the Crown to the chair of Surgery in the University of Glasgow. Upon petition of his enthusiastic students his appointment as surgeon to the Royal Infirmary reluctantly followed. One can imagine that it was not the older men who were enthusiastic about his radical ideas, and a partial record of the opposition he had to overcome has come down to us in the literature. But it is not difficult to picture the ridicule, jealousy, and even hatred that he had to contend with.

It was in 1865 that his chemist colleague, Prof. Thomas Anderson, called his attention to the work of Pasteur. Lister immediately saw that the French chemist's findings of bacterial life in fermenting grape juice and the dust of the air had solved his own problem of wound infection. The last stage of the great idea was ready to come into the world. It had been conceived in the minds of many men for the half century previous but had aborted; life is so short, science so long to learn. At last, in May 1866, when Lister was 39 years old, "Surgical Asepsis" was born in the wards of the Royal Infirmary, Glasgow.

I am making these frequent quotations of dates because I assume many of my readers

will have the same difficulty that I have in visualizing how recently it all happened. Nor are we to assume that medicine at once embraced its wonderful child. In America, Dr. Samuel Gross' System of Surgery published in 1882 (45 years ago) did not speak favorably of the "germ theory of Lister." The older members of our profession may as easily remember seeing some worthy surgeon, dressed in frock coat, sharpen his scalpel on his boot before making an incision; as I remember listening in open-eyed wonder to the tales of a Civil War surgeon. "In those days, surgeons usually washed their hands after operation instead of before, and wore an old frock coat, the cuffs and front of which were stiffened with dry blood. The age of the coat testified to the operator's experience. Sutures of silk were conveniently held in button holes, and were either waxed, or passed through the surgeon's mouth to insure easy sewing. The surgeon also used his nose as an aid to diagnosis, for by smelling of the reeking wound he could tell by the stench whether or not the pus was 'laudable'."

Surgical operations had been made painless by the discovery of the use of chloroform and ether about 15 years earlier and were therefore more frequent. It is interesting and curious to note at this point that one of Lister's most bitter opponents in Edinburgh was Sir James Y. Simpson, of chloroform fame; a great and influential man but not quite big enough to see Lister's greatness. In the days of which we are writing surgeons could not safely enter the great cavities of the body nor even hope to conserve an injured limb or finger. Surgical operations were therefore principally limited to amputations, and in these, there was an even chance that the patient would literally rot and bleed to death of "hospital gangrene" which at times decimated whole wards. So great was this evil that it was seriously considered to destroy all hospitals in England and Scotland and rebuild them cheaply so they could be again destroyed when they became too deadly septic. The same forlorn, drastic measures had been proposed by the thoughtful ones on the Continent. Florence Nightingale's life (1820-





*(Crayon drawing, from photo, by Hugh Walter)*

JOSEPH LISTER, M.B., F.R.C.S.,  
at about the time of his discovery of the value of  
antiseptics in surgery.

1910) and work of humanizing hospitals was contemporary with that of Lister. The prevailing opinion was that hospital gangrene was due to chemical action in the tissues, and the oxygen of the air was thought to have a relation of some kind. Small wonder that hospitals were associated in the public mind with the "black battle".

Ridiculous and revolting as a recitation of these beliefs and practices may seem in the light of our present knowledge, they were no worse and no better than hundreds of other things that have been improved for human betterment, the care and preservation of food, for instance. And even now there are some of the cheeses that are crying for a Lister.

Without losing sight of the fact that there were many earnest souls working for improvement in surgery, the foregoing is a fairly true sketch of conditions when Lister took Pasteur's discoveries and applied them to surgery. But he was a poor advertiser of himself and it was upon insistence from Syme that he read his first report on his sterile technic, in August, 1867. It made little impression; as much unfavorable as favorable. Few could realize that his use of dilute carbolic acid in dressing wounds and spraying the air of his operating room was a means to the fundamental principle of surgery. His pun-loving enemies, in poking fun at him used to say "let us s—pray." But in spite of the calumny his results could not be denied; he had banished putrid wounds.

It is impossible in a sketch to even catalog the activity of his brain and hands; his inventions of instruments and apparatus; his experimentation with suture and drainage material on animals, etc. In 1868, he discarded the use of rags in dressings and began to use gauze. Up to that time rags were a standard charity to hospitals. (Ask any American lady who lived through our Civil War period). They arrived at wharves and railway stations in bales, unprotected from dirt. In 1872, Lister began the use of his "hot box" for the sterilization of his dressings. This hot box was the crude parent of

the autoclave and the beginning of modern operating room sterilization.

Between these last two dates there came another important event in Lister's life. The long illness and finally the death, in 1870, of his beloved father-in-law and teacher, Syme, left a vacancy in the chair of clinical surgery in Edinburgh. The 10 splendid years at Glasgow were at an end. He returned to Edinburgh and became Syme's successor; brilliantly filling the highest post in British surgery for the next 8 happy years. Surrounded by undergraduate students who adored him, he was sought by eminent surgeons from all over the world, and had the satisfaction of seeing his ideas take root and spread. With the days so full of work and vital contacts, the evenings were devoted to experiments and research into the fields allied to surgery, in which Mrs. Lister was his chief helper.

He is described as above medium height, well set, with a fine head, carried a little to one side, a long upper lip and side whiskers. He was very gentle; one of the finest of the Victorians. He did not speak of his "cases." With him it was, "this poor fellow" or "this good woman." No wonder his patients worshiped him. Sir James M. Barrie quotes a part of a letter from William Henley telling the circumstances surrounding him when he wrote his "Invictus". "I was a patient in the old infirmary at Edinburgh. I had heard vaguely of Lister, and went there with a sort of forlorn hope on the chance of saving my foot. The great surgeon received me, as he did and does everybody, with the greatest kindness, and for 20 months I lay in one or other ward of the old place under his care. It was a desperate business, but he saved my foot, and here I am." A beautiful tribute from a poet to a man of action, but read the expression of the poet's courage:

#### INVICTUS

Out of the night that covers me,  
Black as the Pitt from pole to pole  
I thank whatever gods may be  
For my unconquerable soul.



In the fell clutch of circumstance  
I have not winced nor cried aloud,  
Beneath the bludgeonings of chance  
My head is bloody but unbowed.

Beyond this place of wrath and tears  
Looms but the Horror of the shade  
And yet the menace of the years  
Finds and shall find me unafraid.

It matters not how straight the gate,  
How charged with punishment the scroll,  
I am the master of my fate,  
I am the captain of my soul.

In 1875 he made a tour of the medical centers of the Continent where, at each stop he received a new triumph. In 1876, he came to America to preside over the Section of Surgery of the International Congress held in Philadelphia. Everywhere he went his presence gave impetus to the spread of his gospel of "Antiseptic Surgery".

The following year, he was called to the chair of clinical surgery in Kings' College, London, the position he had coveted in order that he might spread his doctrines among his own people. He was 50 years old and it had taken him 27 years, by a round about route, to reach his goal. But in contrast to his reception on the Continent and in America, his ideas were not accepted by his own people. No patients came to his ward, while the reeking beds of the old-system surgeons were overflowing. But, it is one of the glories of his life that his firm belief in himself, and his kindly nature, finally won out. His sacrifice of leaving the congenial conditions of Edinburgh to establish his theories in London were not in vain. Gradually his earnestness and kindly nature won for him the highest honors. In 1883 he was made a baronet and became Sir Joseph Lister.

At Christmas time 1892, a great ceremony was held in France in honor of Pasteur's seventieth birthday. Lister was 65 years old. It was the first time these two men had met and when they embraced, it was said to be like a living tableau, of the brotherly unity of science in the relief of humanity. To Sir

Joseph's expressions of admiration and gratitude, Pasteur replied with the melioristic comment, that "Science and peace will triumph over ignorance and war; that men will unite not to destroy but to build up, and that the future will belong to those who have done most for suffering humanity". Sixty-five years was the retiring age at King's College.

Lister held his hospital appointment into the following year when he also gave up his private practice. Soon after this, Lady Lister died suddenly while they were on a tour in Italy.

Honors were heaped upon him. Sir Joseph Lister became Lord Lister in 1897; the first physician to be made a peer. Such were the outward shows of gratitude, but there was and is that finer, heartfelt appreciation expressed by Mr. Bayard, the American Ambassador, when he said to him, "My lord, it is not a profession, it is not a nation, it is humanity itself, which, with uncovered head, salutes you".

Lord Lister kept up his interest in life until 1903 when he was overtaken by an illness which left him infirm so that he afterward lived a secluded life. In 1908 he found some pleasure in a visit to a sister-in-law living on the Kentish coast. He stayed on, always expecting to return presently to London.

Lord Lister died February 10, 1912, at Walmar, Kent, England, aged 85 years, and although his remains were offered a resting place in Westminster Abby, they were buried, as he requested, beside those of his wife in Hempstead cemetery.

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## THE TREATMENT OF ECLAMPSIA

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Theoretically, the ideal treatment of eclampsia is the immediate emptying of the uterus. Statistics show that in from 78 to 93% of the cases convulsions cease when the woman is delivered. The easiest and quickest method to accomplish this is by means of cesarean section. Figures gathered from the whole

world, however, place the mortality from delivery by the abdominal route at over 30%. This is due to the fact that the eclamptic is a notoriously poor surgical risk, and the evil consequences of accouchement forcé and other brutal methods of rapid delivery have guided treatment into more conservative channels directed toward the control of convulsions and detoxicating the patient, with delivery a secondary consideration.

Proper treatment demands a knowledge of the underlying pathology. Today we divide eclampsia into 2 groups, one renal, the other hepatic. Clinically it is extremely difficult to differentiate between them, but a careful working up of the case will elicit much valuable information.

In true eclampsia—the hepatic type—there is a relatively sudden appearance of a greatly elevated blood pressure; an increase in the uric acid and a marked increase in the lactic acid in the blood and a normal blood nonprotein nitrogen; an elevated blood sugar; and a low carbon dioxide combining power. The urine shows a large amount of albumen and ammonia, while the presence of acetone and diacetic acid indicate definite disturbance in the function of the liver. Examination of the eye-grounds may show a detachment or edema of the retina, but never any signs of albuminuric retinitis or of the other changes which are so frequently associated with nephritis.

In the nephritic type, on the other hand, the diastolic pressure is usually well over 90. There is an increase in the blood nonprotein nitrogen together with an excess of indican and xanthoprotein, both of which should be detectable in the blood. In the urine a large amount of globulin and the presence of hyalogramular and fatty casts indicate a definite impairment in the structure of the kidney, and an abundance of epithelial casts shows an active degenerative process.

Ophthalmoscopic examination may show an albuminuric retinitis and arteriosclerosis or some other sign of involvement such as an edema or hemorrhage of the retina.

Hypertension is the rule in most of the toxemias, nevertheless, a closer scrutiny of

the increased pressure is helpful toward a better diagnosis. Ordinarily we distinguish 4 types.

(1) A mild type in which the rise in blood pressure is gradual. These patients are not very toxic and the underlying condition is a mild nephrosis due to some active focus of infection. It occurs usually about the fifth or sixth month.

(2) A fulminating type occurring with abrupt, unexpected onset and all the signs of a severe intoxication. The rise in tension is rapid and the symptoms quickly merge into those of true eclampsia. The prognosis in these cases is bad.

(3) A cardionephritic type where hypertension is merely the exacerbation of an already existing cardiorenal condition, and is most apt to be found in multiparae or elderly primiparae. It is in this type that we find our highest pressure.

(4) A complex type in which the increased readings occur with definite complications of pregnancy such as acute infections, thyrotoxicosis, acute nephritis, or obstetric difficulties.

The toxemias, however, are not always accompanied by an increased blood pressure. Some of the most rapidly fatal cases of eclampsia in which there is a marked alteration in the substance of the liver are accompanied by a low blood pressure, and as hypertension is common in pregnancy this condition is apt to be dangerously misleading unless the accoucheur is on his guard. Blood pressure readings and urinary findings are not the only weather vanes that show the impending storm. The weight of the pregnant woman is coming to assume increasing importance in antenatal care. The average gravid patient gains from 20 to 25 pounds in weight, the mean being about 23 pounds. In the last 8 weeks a primipara will gain  $2\frac{1}{2}$  lb. and a multipara almost 4 lb. per month. In toxemic subjects, on the other hand, the gain is apt to be more than 12 lb. per month. In the last days of pregnancy there is usually a terminal loss of  $2\frac{2}{10}$  lb., due to a slightly increased excretion from the body. Women who do not have this terminal loss in weight



have a tendency to eclampsia. Keeping the weight within normal limits helps to prevent toxemia.

Diet, then, plays an important part not only in warding off eclampsia but also in treatment of the toxemia when it is full blown. A constant systolic pressure of 140 requires strict regulation in the diet and hygiene. Here the diet is limited to 1500 calories containing 50 gm. of proteid. The total elimination of nitrogenous material is not essential. The average glass of milk contains approximately 7 gm. of proteid and 8 gm. of fat and supplies 155 calories, so that the large bulk of the diet can be made up of milk supplemented with green vegetables and a little fresh fruit. Articles that produce vascular irritation should be eliminated at once, particularly the condiments and spices containing irritant volatile oils and the seasoned meat extractives, such as broths and gravies, together with tea, coffee and alcohol; beef, mutton, pork and veal are strictly forbidden. In the true preëclampsic toxemia fat should be eliminated. Salt is restricted at first but the restriction of salt should not be carried out over an extensively long period of time. If no further benefit results from the rigid salt restriction 3 gm. are added to the diet and this quantity is sufficient to maintain equilibrium. No diet helps in all cases, but as a general rule the diet should be salt poor, and protein and fat poor, with rest in bed.

If there is no cardiac contraindication the drinking of liberal quantities of bland fluids is encouraged. "Imperial Drink" consisting of one dram of cream of tartar, juice of half a lemon, with a pint of water and enough sugar to flavor, is very agreeable and slightly diuretic. Water is administered night and morning to an empty stomach. It is both laxative and diuretic, and in combination with the milk diet will produce polyuria.

Where the systolic pressure is maintained at a level around 160, active medicinal treatment under accurate observation is indicated. The vegetable diuretics and diuretin are not recommended. Of all the drugs used for the treatment of edema, ammonium chloride is probably most effective. Following its administration there is usually a loss of weight,

disappearance of the swelling, an improvement in the urinary output, lowered blood pressure and a lessening of the subjective symptoms. It is given in 20 gr. doses in gelatin capsules every 2 or 3 hours until the edema disappears. The total amount given varies from  $1\frac{1}{2}$  to 3 oz. If, however, there is an increased urea retention in the blood and a high carbon dioxide combining power then the ammonium chloride should not be used.

A pressure above 160 calls for admission of the patient to the hospital and the injection of 20 c.c. of a 10% solution of magnesium sulphate intravenously. This has the effect of lessening the toxic symptoms and helps in reducing the blood pressure. If there is a recurrence of the symptoms the injection is repeated. The blood pressure is taken daily and the amount of urine passed every 24 hours is measured. If in spite of all these measures there is no improvement in a week or 10 days or if the condition is growing progressively worse, the pregnancy should be terminated.

Confronted then with a case of convulsive eclampsia, what is the best method of procedure? First of all, individualize the case. Make a complete physical examination of the patient, as far as possible. Determine the period of gestation; the viability of the fetus; the condition of the cervix whether it be obliterated or not, and the amount of dilatation; above all, determine whether or not there is any obstruction to passage of the child, for eclamptics are just as apt to have abnormalities as any other pregnant woman. Having determined this, our treatment resolves itself into control of the convulsions.

From  $\frac{1}{4}$  to  $\frac{1}{2}$  gr. of morphin is given immediately. The alimentary tract is cleaned out. The stomach is lavaged with 5% sodium bicarbonate solution, followed by the introduction of 2 oz. of magnesium sulphate solution through the tube, and the lower bowel cleaned out by colonic irrigation. The bladder is catheterized. The foot of the bed is elevated about 4 in. and the patient turned on her side, allowing the tongue to fall forward and mucus to drain from the mouth. Phlebotomy is falling more and more into the discard. In a vigorous, phlethoric woman with

a blood pressure of 150 or more, however, the withdrawal of a pint or more of blood, replacing it with a pint of 10% glucose solution, may be decidedly beneficial. Where there is a great deal of restlessness the morphin is repeated in 1 hr. If the convulsions occur, 20 c.c. of 10% solution of magnesium sulphate should be given intravenously, and repeated every hour if necessary to control the convulsions or for the relief of toxic symptoms. Usually 1 or 2 injections are sufficient. There is some slight danger of respiratory failure with the use of magnesium sulphate; this is easily overcome by injecting the Epsom salts slowly, and by the immediate injection of calcium chloride if symptoms develop.

There is no doubt that exhibition of magnesium sulphate does have a beneficial effect. It is anesthetic. It control convulsions, especially of the tetanic type, and in tetanus the convulsions have been controlled by magnesium sulphate given intraspinally, intramuscularly, intravenously and subcutaneously. Its administration is followed by a reduction in the blood pressure, by a lessening of the edema, probably due to an increased output of urine and a decrease in the congestion and swelling of the kidneys. At the same time there is a fall in the cerebrospinal fluid pressure, a reduction in the brain bulk, and a lessened irritability of the patient.

Coma, on the other hand, is not relieved by magnesium sulphate. There are other factors in the production of coma that demand consideration. A rapidly rising temperature may be suggestive of a cerebral hemorrhage. In one of the cases of our series where we tapped the spine, free blood was found in the cerebrospinal fluid. The coma of uremia is just as serious and the prognosis just as grave in the pregnant as in the nonpregnant state. Where the coma is due to acidosis, therapeutic measures to combat this condition must be instituted. At the Johns Hopkins Hospital, insulin in doses of from 15 to 25 units is administered to those patients showing a high blood sugar and a carbon dioxide combining power of 30 or below who lapse into coma or semi-consciousness following a convulsion. The number of cases treated in this manner

so far has been small, but the results have been very satisfactory.

It is oftentimes wise when the cervix is dilated 3 fingerbreadths or more to rupture the membranes, and this relief from intraabdominal tension often has a favorable effect in lessening the convulsions. Then, with the patient having regular uterine contractions, barring any abnormality, labor is completely disregarded until the cervix is fully dilated. With completion of the first stage the child may be extracted by the breech, or labor terminated by a low forceps extraction when the head has reached the level of the ischial spines. Cesarean section as a means of rapid delivery is to be condemned except in the case of a primipara at or near term where the condition of the cervix does not permit delivery through the vagina. In one of the cases of this series this was done; there was an enormous edema of the vulva and vagina with a high, rigid cervix, very little softening, no engagement, no preparation for labor, and the first manifestation of the toxemia was a convulsion. The patient was delivered of twins, made an uneventful recovery and the 3 are alive and well today.

What does this treatment offer us over the methods we have been following? In the past 5 years, in this hospital, we have had 22 cases of convulsive eclampsia treated by all methods and by various men. The mortality has been 50%. Analysis of our deaths softens the blow a little. One of these cases died of lymphatic leukemia, as proved by autopsy, and the other died undelivered 3½ hr. after admission, being moribund on entering the hospital. Omitting these 2 cases, gives us a mortality of a little over 40%. In Los Angeles, where the magnesium sulphate treatment is being used almost exclusively, the death rate has ranged from 9 to 14%. Their death rate before introduction of the magnesium sulphate treatment was 36%. Surely then a therapeutic measure that offers us a reduction of about 30% in mortality in these desperate cases is well worth a trial. Moreover, since we have been using this method of treatment we have had 4 cases of eclampsia with no deaths.



*Summary.*—Treatment of the preëclamptic requires chemical examination of the blood and urine, daily blood pressure readings, weight control, regulation of the diet and elimination. Edema and hypertension are managed by rest in bed, limitation of fluid and the use of ammonium chloride and magnesium sulphate.

When convulsions develop, morphin is given by hypodermic injection immediately, the alimentary tract is cleaned out by lavage and colonic irrigation, and if the convulsions recur magnesium sulphate is given intravenously. Delivery is attempted only when the cervix is fully dilated and an easy extraction without trauma is possible. Cesarean section is limited to primiparae with rigid cervixes where there has been no preparation for labor.

**EXPERIENCES WITH SYNERGISTIC ANALGESIA IN OBSTETRICS**

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Our duty as obstetricians is to guide the patient safely through her pregnancy and labor and to have as a result a healthy babe and a well mother. Any means to this end should not be lightly disregarded. Pain is of no advantage in itself. Labor is a painful process and produces a certain degree of shock—nervous shock—which can be recognized. Even the quite short labors are sometimes accompanied by a considerable nervous reaction and of course often by severe pains. Any method that will lessen the pain and shock of labor with safety should be helpful. Doubtless all of us are glad to be relieved of pain when occasion arises. The nearest approach to parturition which men can experience is perhaps a surgical operation, which also has its accompanying discomfort and shock. Anything which minimizes these factors we are glad to have used when we are patients; we want proper preoperative preparation, the preliminary narcotic and skillful administration of the best available anesthetic. These adjuncts to

a smooth operation are somewhat comparable to the methods used to make labor easier. Granted that quite a number of women go through labor with very little help, that is no reason for our not being ready to help their less fortunate sisters.

Management of the first stage of labor is sometimes a puzzling problem. Everyone has had patients who became thoroughly exhausted long before the cervix was anywhere nearly fully dilated or dilatable, and they must have rest if labor is to progress. They undoubtedly suffer from real shock. Why not, then, prevent such a patient from becoming worn out, ward off some of the shock before it occurs, instead of waiting until one is compelled to treat it? Hence the development of various schemes for relieving pain in the first stage of labor. Unless the day should ever come when the ordinary case will be delivered by cesarean, there will always be a place for such methods. Twilight sleep had its trial and has been found to possess inherent disadvantages and to be somewhat dangerous for the baby, although it is still used in some hospitals. A modified use of morphin with scopolamin or hyoscin is favored by many. At least one clinic<sup>(1)</sup> is relying almost entirely on the use of ethylene early, beginning in the first stage and given with the pains.

After painstaking experimentation, synergistic analgesia was evolved at the New York Lying-In Hospital. Recently their number of cases treated reached over 28,000. The technic is described in detail in Dr. Davis' <sup>(2)</sup> paper, and Harrar<sup>(3)</sup> again gives the technic and their results in a recent article. A word as to the action of magnesium sulphate in prolonging the sedative effect of morphin or other narcotics. Very recently, Dr. Gwathmey, the originator of this method, showed statistics of operations indicating that the relief obtained from morphin alone averaged 4 hours and 6 minutes, but with the addition of magnesium sulphate to the same dose of morphin relief lasted 16 hours and 16 minutes. We wish briefly to record our experiences with this method in a very small series. Only personal private cases have been used as being the only cases, it was considered, that could be follow-

ed closely enough to make deductions of value. We have been using the method somewhat over a year. It is realized that in obstetrics statistics are often misleading and that the many factors influencing labor make grouping of results difficult. Three groups, of unequal size, have been recorded for purposes of comparison; 75 patients who received synergistic analgesia; 28 who had morphin or morphin-hyoscin; and 59 patients who had no relief in labor except gas-oxygen or gas-oxygen-ether, often for the reason that first stage pains were not severe enough or did not last long enough to warrant hypodermic medication or relief. Sodium bromide and chloral per rectum have been administered in a certain number of this last group and in an occasional case in one of the other groups, but their use is disregarded in this connection because their action is considerably milder than that of the other agents under consideration.

We notice that of the group receiving synergistic analgesia, less than half (43%) received the full treatment. Of the morphin-hyoscin group, only 36% received a second hypodermic. In patients who received only the morphin-magnesium sulphate injections without the rectal instillation the sedative effect was satisfactory in 67% and in 5% excitement was increased without real relief. In some of these cases the rapid development of labor accounts for the poor results. Patients receiving the full synergistic analgesia routine were quieted in 83%, while Harrar<sup>(3)</sup> reports 85% of good or sedative results. It is more difficult to estimate the effect on uterine contractions but even if these were diminished in force and frequency in 22% no harm seemed to occur. In some 8% of the cases, labor seemed to be definitely slowed up, but the patients were not exhausted. The longest labor in this series lasted over 47 hours, but prolonged labor seemed to have no bad results. It is sometimes difficult to say what would have happened in a particular case if a different routine had been followed, but all of these sedative drugs should and usually do help to soften the cervix.

In using any method to procure relief we

should not give it so early that labor is arrested; we must first allow labor to become well established as evidenced by regular pains of good character and beginning dilatation. In the analgesia group we find that the beginning of treatment averaged about 1½ hours later than in the morphin-hyoscin group but that the average time from the first injection until delivery was shorter. The average duration of labor was almost the same in these 2 groups, while in those cases receiving nitrous oxide gas-oxygen alone it was only half that time.

The third stage was not interfered with by synergistic analgesia, for it averaged 9¾ minutes as against 11 minutes for all other cases. Our management of the third stage has not differed during this period and consisted of the administration of 1 c.c. of pituitrin at the onset. Postpartum-contraction of the uterus was set down as good in 87%, fair in 12%, and poor in only 1 case; a better record by some 15% than that shown in the other 2 groups of cases. Hemorrhage during and after the third stage was almost the same in all groups. Hence, relaxation of the uterus does not seem to follow synergistic analgesia.

The condition of the baby is very important. A spontaneous, prompt cry was recorded in 72% of all cases receiving morphin and in 90% where no morphin had been used; while asphyxia was present in the other babies, in no case was it dangerous, although occasionally disconcerting. We try to give morphin only when we consider delivery several hours distant, but our prognosis as to the time of delivery is not always correct. Other influences besides morphin play a part in causing fetal asphyxia, and it occurred in 10% of cases who had no morphin. The still-birth reported was known to be a dead fetus at the onset of labor.

The effect on the painfulness of the pains, as distinguished from sedative effects, would seem to favor morphin-hyoscin considerably as compared to synergistic analgesia, which in about 7% of patients receiving it seemed to be followed by an increase in the amount of pain felt. Vomiting occurred in almost half of the analgesia cases, as against 18% re-



	Synergistic Analgesia	Morphin and Hyoscin	Gas-oxygen Alone
Number of cases	75	28	59
Incomplete routine	Injections Only 57%	Only One Hypodermic 64%	
Effects			
Unchanged	27.5%	6%	
Sedative	67.5%	94%	
Exciting	5%		
Complete routine	43%	36%	
Effects			
Unchanged	17%		
Sedative	83%	80%	
Slightly sedative		20%	
Contractions of uterus after medication			
Increased	45.5%	46.5%	
Decreased	22.5%	10.5%	
Not affected	32%	43%	
Slowing of labor	8%	3.5%	
Average length of labor	15¼ hours	15 hours	7 hours, 25 minutes
Longest labor	47 h., 48 m.	34 h., 35 m.	23 hours
Average time from onset of labor to first medication	8 h., 25 m.	7 hours	
Average time from first medication to delivery	6½ hours	7 hours, 20 minutes	
Average of third stage	9¾ minutes	11 minutes	11 minutes
Contractions of uterus after delivery			
Good	87%	71.5%	66%
Fair	12%	25%	30.5%
Poor	1.5%	3.5%	3.5%
Hemorrhage postpartum			
None	5.5%		3.5%
Slight	54.5%	53.5%	52.5%
Moderate	32%	36%	34%
Frec	8%	10.5%	8.5%
Profuse			1.5%
Condition of baby			
Crying	72.5%	72%	90%
Asphyxiated	24.5%	28%	10%
Apneic	1.5%		
Still-born	1.5%		

corded in the morphin-hyoscin group. However, before commencing the use of this method, careful records were not kept of vomiting, and the figures may not represent the real facts. Many patients vomit during labor before anything has been administered, but this seems to be increased by the use of synergistic analgesia.

We have tried to give every patient an anesthetic as the head is stretching the perineum and this method of analgesia has not altered our practice in this respect. Probably a few of these patients would terminate labor comfortably without an anesthetic, but that is a hard matter to predict, and many of them need very little nitrous oxide gas. In using morphin-hyoscin, gas-oxygen had often been given as an analgesic intermittently with the

pains, starting with the onset of the second stage and often before the end of the first stage. In the rectal instillation with its 2½ oz. of ether we have an analgesic, the effects of which usually seem to last on into the second stage, so that such patients do not want or need gas until a later time, until the second stage is well under way. Hence in this series the longest use of gas-oxygen was 2 hours and 46 minutes and the average duration of its use was 55 minutes. In the morphin-hyoscin series the longest use of gas-oxygen was 5 hours and the average time was 1 hour and 52 minutes. I have seen gas-oxygen given intermittently in labor for 8½ hr., but I would rather a patient had 2 rectal instillations, properly spaced, each containing 2½ oz. of ether, than to attempt to produce gas-oxygen anal-

	Synergistic Analgesia	Morphin and Hyoscin	Gas-oxygen Alone
Effect on pain			
Decreased	73%	96.5%	Mild pains in
Much decreased	(65%)	(75%)	63%
Slightly lessened	(8%)	(21%)	
Not affected	20%	3.5%	Severe pains in
Increased	7%		37%
Multiparas			
Easier labor than others	52%	57%	87.5%
Harder labor than others	40%	43%	12%
Vomiting	49%	18%	8.3%
Gas-oxygen administration			
Average duration	55 minutes	1 hour, 52 minutes	47½ minutes
Ether or chloroform given by inhalation	37%	75%	80.5%
Chloroform used		once	7 times
Longest administration of gas-oxygen	2 h., 46 m.	5 hours	3 hours, 10 minutes
Forceps			
Incidence	28%	70%	13.5%
Medium	(57%)	(65%)	(50%)
Low	(43%)	(35%)	(50%)
Noninstrumental deliveries	72%	30%	86.5%
Occiput posterior positions	32	6	3
Spontaneous rotation of occiput posterior positions	50%	none	none
Persistent occiput posterior positions	3 - 9.5%	none	none

gesia over such a long time. For various reasons ether had to be added to the gas-oxygen in 28 cases, or 37%; the amount should be kept at a minimum when ether has been given per rectum. In the morphin-hyoscin group the patients needing the addition of ether was twice as great, and greater still in the third group.

This method allows us to give the patient more time to complete her delivery by natural methods and still leaves her in good condition and not exhausted. This is shown in the incidence of forceps deliveries in the 3 groups; 28%, 70% and 13%. The relative number of forceps cases seems high, but the patient has always been given a good opportunity to deliver herself in the absence of such factors as signs of fetal distress, real uterine inertia, malposition of the head, etc. In a few cases a Scanzoni rotation of an occiput posterior position was followed by natural delivery.

In the analgesia series a large number of occiput posterior positions were recognized—32 in all. In half of these, spontaneous rotation occurred and in almost one-third the

head was delivered with the occiput posterior, before it could be corrected.

Two other points have been noticed following labor in these cases. The so-called "nervous" chill following delivery rarely occurs, and the patients rest and sleep much better after delivery, instead of being excitable.

The relief of pain, the sedation and the lessening of shock obtained by the use of synergistic analgesia all allow time for nature to do the essential things in labor. The method is ideal for the patient who is expected to have a prolonged labor, the breech, the occiput posterior, or the patient who is very apprehensive. It is comforting to know that one's patient is having relief and some rest, and it makes it much easier to control the patient's family and much easier to get them to coöperate in keeping her quiet. A noisy patient, on the other hand, does herself some harm and is a general nuisance.

Luckily, this method of making labor easier is not a panacea, and does not solve all our difficulties, does not reduce our work to a mere routine. It is withal necessary to use the same obstetric judgment as in other cases;



we can afford to be somewhat more conservative with its use.

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### SOME GYNECOLOGIC THOUGHTS

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General abdominal surgery had its birth in a gynecologic operation performed by a backwoods doctor, practicing without a diploma. In 1809, Ephraim McDowell removed an ovarian cyst for the first time, and abdominal surgery had its inception. There can be no denial that by performing the first ovariectomy, McDowell earned for himself the title of "Founder of Abdominal Surgery". The important fact of the whole affair was, that in addition to demonstrating the feasibility of the ovariectomy, he demonstrated and emphasized for the first time, the possibility of invading the peritoneal cavity. Through full recognition of this surgical possibility, the awe in which the peritoneum had hitherto been held was dispelled, and it was not long before general abdominal exploration had overshadowed in importance the primary gynecologic event.

The advantages of anesthesia and, later on, the development of asepsis, brought about the almost incredible evolution of abdominal surgery as we know it today. The general surgeon came into existence, and not only the abdomen, but the entire body was his realm. Even in my intern days, the general surgical service was the active one. At that time the eye, ear, nose and throat service existed, as also did a gynecologic service, but otherwise, the general surgeon had everything to himself. Trephines, fractures, dislocations, thy-

roidectomies, empyemas, prostatectomies, nephrectomies, gastro-intestinal operations were all in the field of his endeavors. He was the "monarch of all he surveyed".

In the intervening years, however, the surgical specialties have appeared. The orthopedist has taken unto himself all of the fractures and amputations. The urologist is now doing all prostatic, bladder and kidney operations. The eye, ear, nose and throat department is well developed. The gynecologic service is still functioning as a separate department, and about all that is unassigned to some surgical specialty is the gall-bladder and gastro-intestinal tract above the descending colon, which portion of the large bowel and the rectum is now assigned to the proctologist. Even chest surgery has become a distinct specialty in some institutions.

The general surgeon has gradually disappeared with the general practitioner, so that today there is no general surgeon in the sense that one man does all types of surgery. It is only a matter of degree. Every surgeon limits his work to a certain degree, some more than others.

During this evolution, gynecology, although practiced by the general surgeon, has remained an outstanding surgical specialty and has developed some of the great leaders of the profession, such as Marion Sims, Emmett and Howard Kelly.

Whether gynecology is to remain the definite surgical specialty it has been or whether it is to become merged with another branch of medicine has been wittily discussed by Dr. Howard Kelly as follows: "The vital question which now affects gynecology is this; is she destined to live a spinster all her days? For we see her on one hand courted by her obstetric ancestor, who seeks to draw her once more into an unholy, unfruitful alliance, destined to rob her of virility, to be rocked into innocuous desuetude for the rest of her days in the obstetric cradle, sucking the withered ancestral finger in the vain hope of nourishment (with apology for mixed metaphor). On the other hand we see her wooed by a vigorous, manly suitor—General Surgery—seeking to allure her from her autonomy into

his own house, under his own name, obliterating her identity."

To which observation, I would add my own opinion that gynecology, being the descendant of obstetrics and the ancestor of general surgery, will continue to maintain her own identity, although now and then she may be allowed the privilege of flirting with either or both of her suitors.

*Definition.*—Perhaps it would be well to define gynecology. The word is derived from the Greek, and means woman and discourse. Pronunciation is given by Dorland as "Jin-e-kol-ogy", and he defines it as being that branch of medicine which treats of women's constitutions and diseases, especially of the genital, urinary and rectal tracts. This definition is, perhaps, a little broader than usually accepted, although the ability to properly diagnose rectal and urinary diseases is certainly quite properly required of the gynecologist. Some gynecologists believe that diseases of the female breast come within their scope, and only recently I heard the statement advanced that thyroid work is gynecologic in character because of the close relationship of the thyroid gland to the female pelvic organs. In the idea, however, that gynecology means diseases of the female generative organs, I am approaching my subject, and will attempt to outline a few of the present-day ideas on this important branch of medicine.

*Diagnosis.*—Considering gynecology from the standpoint of diagnosis I would like to emphasize the fact that gynecologic conditions are seldom urgent. About the only urgent condition occurring in gynecology is a ruptured ectopic pregnancy, and even that is often best treated expectantly. The term "acute surgical abdomen" in the sense of meaning immediate operation, seldom applies to the female pelvis. Consequently, the opportunity for careful study is present.

The gynecologic history is of a fair amount of importance. The location and character of pelvic pain will often be valuable in arriving at a tentative diagnosis. The character and time of bleeding will often give a good lead as to diagnosis, as also will the character of a leukorrhea. The examination, however, is

of far greater importance. A general physical examination should precede the strictly gynecologic one. This does not have to be slow nor too detailed, but should include listening to the heart and lungs to rule out gross lesions and, of course, should include an abdominal examination. A digital examination of the rectum and also a proctoscopy are often very important, as lesions of the rectum are often the etiologic factors in gynecologic complaints. Many a dysmenorrhea is due to an anal fissure, and more than one retroverted uterus has resulted from a redundant and impacted sigmoid. I have seen at least 6 cases of retroversion cured by properly given colonic irrigations. Cystoscopic examination is often a big help, and everyone doing gynecology must be able to distinguish the ordinary bladder lesions. Catheterization of the bladder before a vaginal examination is important. A full bladder may easily be mistaken for a fibroid uterus.

It has been definitely settled that lumbar pain is due in many instances to causes other than gynecologic ones, and it is always well to exclude orthopedic conditions as etiologic factors of a backache. Finding a retroverted uterus does not necessarily mean that it is the cause of a backache. More than one abdomen has been opened for pain when the pathology was a tubercular spine.

Bimanual vaginal examination will in many instances be helpful in finding pathology. The position and general condition of the cervix will tell much and examination of either fornix will serve to show whether or not there be any tubal or ovarian pathology. It seems unnecessary to say that every gynecologic examination should include the use of a speculum. It is surprising what a different impression of a cervix is gained through a speculum than is obtained by digital examination.

In recent years, introduction of the insufflation test of the fallopian tubes has been of great value in cases of sterility. However, this test must be carried out with precautions of asepsis. I do not think that it is an office procedure, but believe that it should be done under the aseptic surroundings of a hospital and the patient should be kept in bed for 10



or 12 hours after the insufflation. It should not be done promiscuously; the cases should be chosen. If there be any evidence of an acute infection of the cervix or of the tubes, insufflation should not be performed. A further development of insufflation which has been of help in diagnosis, is an x-ray examination made while the gas is in the peritoneal cavity. X-rays will often at this time outline ovarian cysts or other abdominal tumors. Along the line of x-ray examination, there has recently been developed a method of injecting iodized oil into the uterine cavity, so that the oil passes out into the fallopian tubes and outlines them very distinctly.

A very important diagnostic aid is the curet. This instrument is of far more importance in diagnosis than in treatment. It is of greatest importance in the early diagnosis of carcinoma of the uterine body. Early diagnosis offers the only hope for cure of carcinoma of the uterus, and a diagnostic curettage in suspicious cases offers the best means of obtaining this essential early diagnosis.

*Carcinoma.* If a diagnosis of carcinoma of the body be made early enough, a total hysterectomy should be the treatment, followed by implantation of radium seeds in the operative stump. The radical Wertheim operation, I think, has been pretty definitely discontinued. In carcinoma of the cervix, radium offers the best outlook. Lymphatic involvement occurs very early in carcinoma of the cervix, and amputation of the cervix or even total hysterectomy does not offer as good an outlook as radium. In passing, I would say that while radium has a definite place in my armamentarium, I cannot say the same for deep x-rays. I have never seen any good results from deep x-ray therapy, but I have seen aggravations of the pathology brought about by this form of treatment.

*Pelvic sepsis.* The treatment of pelvic sepsis is still that of watchful waiting. Each patient must be individualized and carefully watched. Rest in bed, attention to gastrointestinal tract, good nursing, the judicious use of an ice bag, and certain forms of physiotherapy will often be all that is necessary to bring a fluctuating temperature to normal. Of

course, if an abscess forms, drainage is indicated, but in many cases there is general sepsis without localization. I have been all through the foreign protein injection treatment for sepsis and cannot say that results were appreciably different. Six cases of post-abortual and postpartum sepsis were treated with intravenous mercurochrome injections. They all recovered but the reactions were so severe and alarming that mercurochrome, intravenously, on my service is only thought of as a very last resort. Parenthetically, however, I might say that externally, mercurochrome is of very great value. All operative fields are prepared with mercurochrome and all postoperative perineorrhaphies are given a daily bath of mercurochrome with a greatly diminished incidence of postoperative infections.

In my experience the one procedure that aids most in boosting a septic patient is repeated blood transfusions. Transfusion will often save the desperately septic patient and greatly shorten the convalescence of the moderately septic.

Acute salpingitis is best treated conservatively. Many times the tubal infection so subsides and the masses themselves so diminish, that operation becomes unnecessary. In cases where operation is necessary, it should not be undertaken until the temperature and leukocyte count have been normal for at least 2 weeks.

*Fibrosis.*—The therapy of fibrosis is still surgical in most instances. Every fibroid need not be removed. Unless a fibroid is causing symptoms, it may well be left alone. For symptom-producing fibroids, supracervical hysterectomy is the choice. Radium will stop hemorrhage of fibroid, but often causes disagreeable sloughing.

*Operative technic.*—Gynecologic operative technic has advanced comparatively little within the past few years; major procedures have become standardized and most of the innovations have taken the form of minor modifications of technic.

The last pathologic condition to be taken out of the realm of discussion and whose therapy has been fairly well standardized at

last, is that of prolapse. I think it is generally accepted now that the correction of a cystocele, rectocele and other cervical or vaginal condition by plastic work is much to be preferred to any abdominal operation for this condition. The elimination of an abdominal operation is a great advantage and most cases can be effectually cured by the vaginal route.

*Spinal anesthesia.*—Before leaving the subject of operative procedure, I would like to refer to spinal anesthesia and caudal anesthesia. About 6 months ago, I began using spinal anesthesia for vaginal repairs. The technic has developed into that of tapping the spine in the third or fourth lumbar interspace, drawing off 10 to 15 drops of spinal fluid into an ampule containing 50, 75 or 100 milligrams of novocain crystals. After the novocain has dissolved in the spinal fluid, the solution is reinjected into the spinal canal and gives an ideal anesthesia for 45 minutes to an hour. The postoperative results are excellent and at the present time I am greatly impressed with its value. Caudal anesthesia requires the injection of 50 to 60 c.c. of fluid into the caudal area and it seems to us to be a more painful procedure to initiate the anesthesia, and it has not given as good an anesthesia as has the spinal injection. However, my experience with caudal is much more limited and further experience may increase its value in my opinion.

I have tried spinal anesthesia in 2 hysterectomies and 1 case of bilateral salpingitis. I succeeded in doing one of the hysterectomies without any further anesthetic. The second hysterectomy required some gas oxygen for the last 10 minutes of the operation. This was because the spinal anesthesia was wearing off, as already extensive vaginal repair had been done before going into the abdomen. The patient upon whom the bilateral salpingectomy was done complained of some pain when the tubes were being freed but otherwise the anesthesia was most successful.

*Physiotherapy.*—Permit me to briefly refer to the status of physiotherapy in gynecology, and I will be through. Negative galvanism is much better treatment for cervical stenosis than is the dilator or knife. Acute gonorrheal

endocervicitis is often spectacularly cleared up by 2 or 3 diathermy treatments. Chronic endocervicitis of certain types may be greatly improved by the use of ultra-violet light or by diathermy, but they are not the cure-all for these conditions that they are sometimes said to be. The actual cautery is often of greater value here. It is good to remember that cervical erosions and excoriations are not diseases but are evidences of infection in the cervical canal. They are not the cold in the head, but they are the sore nostril. These erosions indicate an infection higher up much the same as a sentinel pile means that further back you will find a fissure. Histologically, the cervix is as much complicated as is the tonsil and much the same as tonsillectomy is the only real cure for infected tonsils, so in many cases, dissection of the cervical canal offers the only real cure for endocervicitis. However, ultra-violet light and diathermy are of some value.

Diathermy is a big help in pelvic infection invading the tubes or broad ligaments; that is parametritis and cellulitis. I believe it hastens absorption of the exudate and I know it makes the patient a great deal more comfortable.

The water-cooled ultra-violet light is of great value in clearing up old discharging sinuses; the air-cooled lamp used for general body radiation is a valuable aid in infections, both local and systemic.

Physiotherapy has a definite place in gynecology, as has surgery and also medicine. It completes the therapeutic triad here as well as elsewhere. The judicious use of all agents of the triad evidences the physician of the broad mind and sincere purpose.

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## IMMUNOGEN THERAPY OF ACUTE PNEUMONIA

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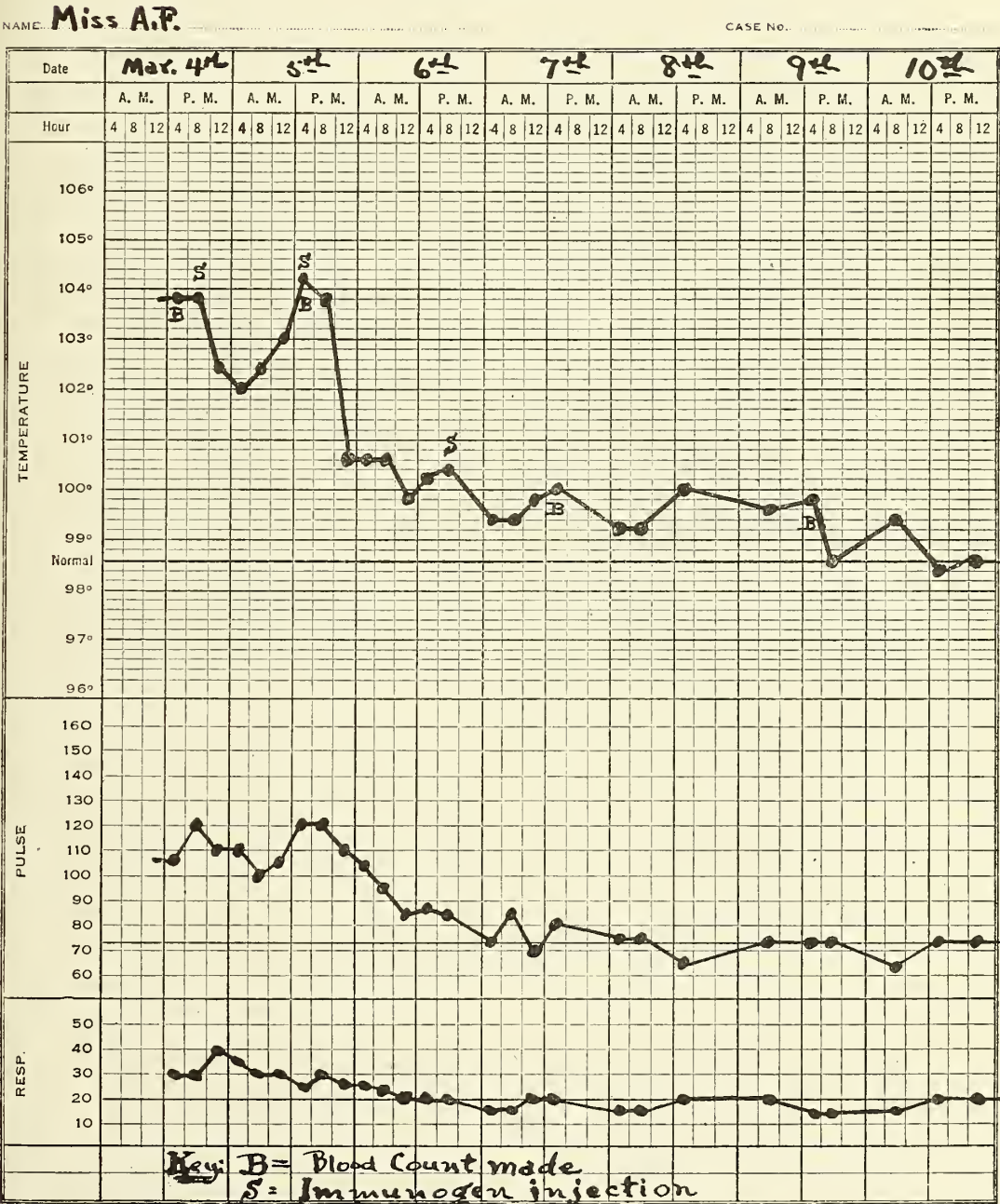
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Some two months ago my attention was directed to the new biologic preparation of Parke, Davis & Co., of Detroit, Michigan,



GRAPHIC CHART



named "Pneumonia Immunogen", and, being of an inquiring mind, I determined to employ it at the first opportunity. Upon March 4, 1927, at 8 a. m., I was called to attend Miss A. F., at her home in Newark, N. J., and upon arrival found that my patient was a young, unmarried, white woman, well-developed, and well-nourished, who gave a history of uneventful good health until 2 days previously at which time the ordinary symptoms of a "cold" had made their appearance. Home remedies were applied without much relief, and, upon the evening of the third, despite the cold, the patient decided to attend a theatrical performance for which she had purchased tickets prior to the onset of her indisposition. Upon her return from the theatre, she was seized with severe chills which did not respond to external heat, whiskey and hot lemon juice, nor to aspirin; and the night was spent in restless misery, the result of the recurring chills, a severe headache and backache, and a hacking type of cough which shortly made itself manifest.

When I arrived she was manifestly ill, and a careful physical examination disclosed an acute pneumonic process with beginning consolidation evident in the posterior portions of the lower lobes of both lungs, with temperature of 104° F., respirations 35, and pulse of 120. A diagnosis of acute pneumonia was made at once and the patient urged to seek hospital care. Objections by the family and a request for consultation caused delay in her transfer to the Presbyterian Hospital until 3:30 p. m., but served to afford me a complete corroboration of the above findings by my consultant.

This appeared to be an ideal case for the employment of immunogen therapy, and, guided by the blood count, the bacteriologic findings, and the temperature, pulse and respiration curves, the proper time for the successive exhibitions of the serum was determined. The pathologic reports here quoted were rendered by the Presbyterian Hospital Laboratory, the clinical supervision being my own.

The accompanying charts serve to show clearly the rapid recovery of the case, not only evidenced by the temperature and pulse, but also in the respiratory rate, the leukocytic picture, and the total absence of any complications. Upon the fourth morning, when the temperature and pulse had receded to the normal point for the first time, the lungs still showed signs identical to those of the first day, and these persisted unchanged until the eighth day, although the temperature, pulse and respiration all continued low, and the leukocytosis steadily decreased. The inference to be drawn from this phenomenon is possibly that the immunogen stimulated the body to produce sufficient antibodies to neutralize the pneumococcic toxemia, but the exudate required about the usual length of time for its absorption. Upon the fourth day of the disease a second consultation was had to again verify the diagnosis and observe the progress.

Three doses of immunogen were employed, each given intramuscularly in the latissimus dorsi. The first dose, 0.5 c.c., was administered the first night; the second injection, 1 c.c., was given the second afternoon, and the last dose, 0.5 c.c., was given upon the third evening.

*Pathological Reports.*—The laboratory reported that the sputum submitted upon March 4, at 5 p. m., was negative for tubercle bacilli, and showed many encapsulated Gram-positive diplococci, a few short chains of the same organism, and a few Gram-negative bacilli.

Urinalysis upon admission showed a high specific gravity (1032), and a trace of albumin with 0.6% of sugar. Neither acetone, diacetic acid, nor casts were found. A second urine sample, examined upon March 7, was identical except for the absence of glycosuria. A final urinalysis, upon March 14, showed but a faint trace of albumin, and no other pathologic features. Estimation of urinary chlorides, upon March 7, showed 3%, or 12 gm. per liter. A tabulation of the blood reports follows:



Dates and Hours.	March 4, 6 p.m.	March 5, 4 p.m.	March 7, 3 p.m.	March 9, 4 p.m.	March 14, 3 p.m.
Leukocytes .....	17,200	16,200	13,200	10,000	8,000
Polynuclears .....	91%	90%	77%	87%	76%
Lymphocytes .....	8%	10%	13%	12.5%	22%
Endothelial Leuk....	1%	0	0	0	1%
Eosinophiles .....	0	0	0	.5%	1%
Erythrocytes .....	Averaged 4,000,000 throughout the course.				
Hemoglobin .....	Averaged 65% for the entire illness, dropped to 60% at the close of the process.				

This case is offered as an interesting bit of clinical evidence in the hope that it may stimulate additional reports by other observers. No deductions are attempted and no decision made as to the potency of the therapeutic agent employed; such can only be based upon the accumulated evidence of many clinicians. The unusually rapid and uneventful recovery of this patient certainly encourages me to make

further trial of "Pneumonia Immunogen", and I would hope that others will join me in seeking to determine whatever potency this product may possess. I fully realize that a single case, no matter how carefully studied and verified, is no criterion, yet I cannot but feel that so cheering an experience as my own in this instance can scarcely be mere chance and coincidence. I await further reports with much interest.

THE BUSINESS AND ETHICS OF  
SPECIAL PRACTICE

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During the summer of 1915 I read before the Colorado Ophthalmologic Society a paper entitled "Business and Office Methods in Special Practice". Although I had 2500 reprints, they were all exhausted in a few months, and even now requests for them continue to be received. Dr. Barkhorn has asked me to prepare a similar paper for the Academy. After some thought I have decided to change the title to "The Business and Ethics of Special Practice". The word "ethics" may mean little or much. Some cynic has said that the Medical Code was a fence erected by the old fellows to keep the young fellows out. As often interpreted, I am sorry to say it so appears to the layman. After having been once employed by a patient we are too prone to consider him our personal property for all future time.

The Golden Rule is the only code necessary, and when thinking of what is due our fellow-practitioner, we should not forget that the paramount entity in medical practice is the patient. How often are the rights of the patient overlooked, when 2 doctors disagree on

the question of ethics. The overcrowding of our profession, particularly with incompetent men, has fostered a competitive spirit and lowered our standard of ethics and morals. If we have suffered loss in consequence, how much greater has been the loss to the public whose health is entrusted to our care? The American College of Surgeons has ruled that no member can indulge in the practice of fee-splitting. Despite this fact, we see and hear almost daily, specious arguments justifying the procedure. If permitted, 2 things must happen. Unnecessary operations will be performed, and the surgeon selected will not be the most skilled one available, but the one who pays the largest commission. This far outweighs all that can be said in favor of the right of the general practitioner to a share of the fee. The moment an oculist accepts a commission from an optician, he consciously or unconsciously will condone improper and inaccurate work on the part of the optician so paying him.

An article in Scribner's for March, 1927, entitled "Sending Our Doctors to the Almshouse" says in part:

"One of the greatest of public misconceptions is that the practice of medicine is a highly profitable vocation. The average doctor lives in a house of respectable appearance, owns an automobile, and usually wears clothes of good quality. It therefore seems reasonable to assume that he is well-to-do.  
Few persons really know what actually takes

place within the average doctor's home. They see him only in a professional connection when his office must be showy, his automobile pretentious, his tailoring perfect. These qualities are all essential to the physician's success. If he is deficient in them, his patients soon lose sight of his professional prowess and patronize a doctor in whose waiting room they may be seen without jeopardizing their social prestige.

Various factors contribute to make the practice of medicine most unprofitable. The most important is the large free list. So many free dispensaries have been opened that the average person feels that where poverty is bliss 'tis folly to be rich. There were about 4000 dispensaries in the United States in 1922. In them, there were treated no less than 8,000,000 patients who made approximately 29,500,000 visits. Assuming that each dispensary visit would call for the average minimal charge of \$2, the value of the gratuitous medical service given at the dispensaries during this 1 yr. was \$59,000,000. Apportioned among the 150,000 physicians of the country, these figures indicate an average annual loss of almost \$400 to each doctor as a result of free dispensary service.

The average physician collects only 60% of what he earns. How can any business or profession ever be profitable if 40% of the assets are dead accounts?

According to Dr. Edward S. Hamilton, the average annual income of the American doctor was \$1200 during 1919. The same figure would probably hold true today. Is it not, therefore, somewhat of an imposture to allow him to scratch 40% of his earnings off his accounts and to contribute \$400 annually to the cause of free dispensary service?

Nothing is ever said in college about the business end of his profession, about fees, or about methods of attracting a clientele. The object of the medical colleges is to turn out as scientific and proficient doctors as is humanly possible. But the physician's quack rivals study the healing art from another angle. They are interested not in disease but in their own financial betterment. A thorough course in advertising and cash-collecting methods are their stock in trade."

It is not my wish to encourage any of you to imitate our quack rivals in any of their methods, but if anything I may say shall help any of you to greater profit or efficiency I shall be amply repaid for the preparation of this paper.

In business and the law much of the routine work is delegated to assistants, but in medicine personal service is demanded, and until recently little attempt has been made by our profession to systematize practice or introduce business methods. This in a large measure is due to the fact that the average graduate in medicine has done nothing but attend school, and has no idea of business methods or office routine. When he begins practice he has so little to do that he can carry

his books in his vest pocket. He begins wrong, his business methods do not improve as his practice increases, and in a few years his books are always behindhand, his correspondence piled a foot high on his desk, and his personal and business affairs in a state of chronic disorder. The resulting wear and tear on his nerves, temper and health are beyond computation. His excuse is that he is "so busy" that he has no time to attend to details, but most successful men in our profession, as well as in commercial life, are men whose affairs are well ordered. The successful doctor who is not orderly is to be pitied, as he never has a minute which he can call his own, while his wife and family are but distractions instead of comforts.

To the physician whose practice is largely office work, much greater opportunity is given to systematize his affairs. This is particularly true of the oculist, and to a somewhat lesser degree of the throat, nose and ear specialist. Except in the very largest cities, it has been until recently the rule that oculists, at least in the earlier years of their practice, have also treated diseases of the throat, nose and ear, and I have no doubt the majority of my hearers do more or less of this work. The difficulties of preparing an impersonal paper are insurmountable, so I must apologize for the personal element as it appears in what follows.

The methods set forth are the result of 25 years in special practice. No originality is claimed for any of the ideas presented. When I have seen, heard or read of any scheme or device for promoting efficiency, I have endeavored to use it as well as the exigencies of my practice permitted. I do not think for a moment that my system is perfected, and am constantly inaugurating new methods. I trust what I may say will be of assistance to some of you, and in the discussion which follows I hope to get many valuable suggestions.

Having always a decided preference for ophthalmology, I 14 years ago took an associate, with the understanding that he should devote particular attention to throat, nose and ear practice, with the exception of ultimately having it all. Naturally many former pati-



ents prefer to have me treat them, and at the present time I do what throat, nose and ear practice I cannot avoid. Two years ago the increase in our practice justified the taking of a younger man as an assistant. As the larger share of our practice is throat, nose and ear work, he is more of an assistant to my associate than to me. When in the office I do practically all the eye work. When I am absent it is done by the junior man unless the patient expresses a preference for my senior associate. We foster a coöperative spirit so that each man is willing to turn in and take another man's work when he is indisposed, ill or wishes to go fishing. From the start, my associate's income has been on the percentage basis. Our junior man is now on a salary, but it is our intention to give him a percentage next year.

Living in a suburban city, rents are moderate enough to permit of more space than is usually found in a doctor's office. The 6 offices occupy the outer tier on the second floor of an office building. The 4 inner rooms are 16 ft. square, and the front and rear ones are about 20 ft. square. Each room has an exit to the hall. As the rooms were not planned for doctors' offices there are a few inconveniences which cannot be surmounted. The toilet is across the hall, and to gain the rear offices patients must traverse the intervening rooms, but fortunately our practice is not of such a nature as to require the strictest privacy. The front room is used for a waiting room, and has seats for 14 people, but there is ample room for additional chairs when required. When possible, a front room with a pleasant outlook to the street should be given the preference for a waiting room. The second room is the nurses' office, and contains 2 book cases, a large flat top desk, a typewriter desk, filing cabinet for cards, a sofa and several chairs. The third room is the office of the throat, nose and ear specialist, and contains ample equipment for all work, being the office I formerly used when working alone. It contains roll top desk, trial case, Ransom and Randolph throat and nose cabinet, electric cabinet, glass table and instruments, electric sterilizer, bottle heater, fountain cuspidor, air tank and air pump, test cabinet, wash bowl

and several chairs and stools. The fourth room is the ophthalmologist's office, but is equipped so he can do throat, nose and ear work also, having a second Ransom and Randolph cabinet, and is lacking only in a fountain cuspidor and electric equipment, the duplication of the latter two being unnecessary. The fifth room is an operating room with cement floor, white enameled walls, glass operating table, large hospital sterilizer, instrument cabinet, glass dressing tables, chairs, stools, bowls, etc. The sixth room contains 2 large cupboards or presses for supplies, clothing and sundries, chiffonier for towels, gowns, etc., and the numerous odds and ends which would be unsightly in the consultation offices.

The 2 doors which are most frequently used as exits have large plate mirrors set in them, and departing women are sent to the nurses' office for the adjustment of wraps, hats and veils, thus saving much time. While so many and such large rooms are not an absolute necessity, they are of the greatest convenience. After efficiency, the desideratum is speed, and with such offices several patients can be in at the same time, either being treated or prepared for treatment. Minor operations are often performed preceding, during or following regular office hours.

But few of us are fortunate enough to have such a select practice that half a dozen patients daily afford ample income. The successful man who charges moderate fees finally arrives at a point where it is almost impossible to see all comers every day, and when that time comes every minute or even second saved increases the number of patients he can treat. Many of the suggested methods may sound trivial, but they are all carried out with the view of saving time. To the man who urges all patients to come at 9 a. m., that he may have the appearance of being excessively busy, or to the one who puts his patient on an operating table wrapped in sterile sheets and makes the removal of a foreign body from the cornea a major operation in order to "justify the fee", my suggestions will be of little value. What I have to say is for the busy man who wishes to make haste without appearing to be hurried. In the endeavor to work rapidly 2.

things must be avoided; failure to give the patient a full and careful examination, or, what is still worse from the patient's point of view, giving him the impression that his examination is being hurried. It is often an advantage not to know how many patients are in the waiting room.

Since the offices are in an office building there is no bell or door attendant, the waiting room door bearing the names, office hours, and, in large letters below, the word "Entrance". A door trip rings a bell in the third office each time the waiting room door is opened. This bell is loud enough to be heard throughout the inner offices.

Naturally no 2 men wish to work in the same way, so each man follows his own inclination as to office hours and appointments. There is always at least one man in the office during the afternoon. My office hours are from 9 to 1 daily, including Sunday, and Tuesday and Friday evenings from 7 to 8. Many business men and women prefer to return in the evening. When the office maid leaves at 4.30 p. m. the waiting room door is left open so that patients arriving before 7 p. m. can enter and wait.

The use of a cycloplegic on Saturday or Sunday spares the patient loss of time from business. The janitor service of the building is not employed except for washing floors and windows and emptying waste. An office maid is employed who comes daily from 12 to 4.30 p. m. She is permitted to take messages and collect money. We have 2 nurses, one of whom does the office clerical work.

About one-half of our private adenoid and tonsil operations are done in the office operating room, patients being sent home in a cab in from 2 to 5 hours. If it seems advisable, they remain over night. The mechanic or clerk cannot afford to pay for a private room in a hospital, but is self-respecting enough to wish to pay something, and our usual charge for such a case is one week's wages. Enough to pay the entire cost of the operating room is received every year from these cheap adenoid operations.

As before stated, the desideratum is speed and efficiency, and my aim is to do nothing

that someone else can do as well for me. All my mail is opened by the nurse and in so far as possible dispatched by her. She credits money, acknowledges réprints, receipts bills, and often writes letters which are not dictated. Time and postage are saved by having detachable slips on statements, thus obviating the necessity of receipting bills. A bank book can generally be balanced in a few minutes if the checks are all sorted and a memorandum made showing checks "not in."

All records of patients or accounts are kept on cards, and while special eye, ear and account cards are of advantage, a single style of plain card can be used equally well. As each patient is brought in the nurse gives the name, stating the character of the case, and, if a former patient, the former record card is in the hand of the surgeon before the patient is admitted. The surgeon does not save much time by having someone else take the history, and he loses much of the personal touch which is often so important in arriving at a correct diagnosis. It is most unwise to cut off the patient during his tale of woe, to appear bored or make light of what seems of such grave importance to him. First impressions go a long way, and the first 60 seconds may determine whether the glasses you are to prescribe will give satisfaction. However, much garrulity can be forestalled if you meet the patient cordially, and immediately take the case in hand by a series of rapid and pointed inquiries.

Each consulting room is arranged to permit a superficial eye, ear, nose or throat examination being quickly made. All work is done by artificial light, electricity only being used. The windows to offices 3 and 4 are blackened. The upper halves of the windows have outside screens, so that the upper windows can be pushed down from the top in summer, yet people in the adjoining building cannot see what is going on.

For nose, throat and ear work the electric headlight is used. There are several varieties, but the Klaar has the combined advantage of the older electric patterns and of the head mirror. Should the street current fail, tungsten lamps and a small battery give equally



good results. Dr. Lynch, of New Orleans, has had the thread on his Klaar light changed so that the lamps used in small pocket batteries can be used, thus saving considerable expense.

An oak American Optical Company cabinet with tilted lens rack is used, and on the top is placed a gooseneck electric light, permitting a wide variety of adjustments.

I use a Ritter ophthalmic chair and have a genophthalmic refracting outfit and refractometer, but do not use it routinely, most dependence being placed on the ophthalmometer, retinoscope and trial lenses. As the room is darkened, it is seldom necessary to draw the shades. Using a Morton ophthalmoscope, with plain and concave mirrors, the refractive condition, clearness of the media, and fundus conditions are perceived almost at a glance.

A Hardy test box, or cabinet, is used for sight testing, and the roll on which the letters are printed has been altered to bring the round opening for muscle testing just below the English letters. This change saves time, for in 98% of cases the English letters and the target are all that have to be shown. The acuity of vision can be ascertained with great rapidity, the only inquiry necessary being "Can you read those letters?" And if the answer is "Yes", "Please read them." A push button switch besides the examiner controls the light. A small mirror on the top of the lens cabinet permits him to see the line exposed.

The acuity of vision and retinoscopic findings decide whether the patient shall be put before the ophthalmometer. If this is done, time is saved by the nurse standing behind the patient and holding the head steadily against the forehead rest. Much time is often lost by timid children and restless adults moving the head, particularly pulling away from the instrument. Muscle balance can nearly always be determined satisfactorily and accurately by the Maddox rod and the cover test. If cycloplegia is found necessary, homatropin is usually employed and is instilled by the nurse. Its use is always followed by eserine.

In each consultation office a small Prometheus electric sterilizer is kept constantly going at low speed. When closed the water just

boils; after using an instrument the surgeon raises the cover and drops it in the sterilizer. The cover is left up as a signal to the nurse and when not otherwise employed she removes the instruments, dries them and places them in the Ransom and Randolph cabinets. A closed sterilizer is supposedly empty. A closed de Vilbiss bottle heater keeps 2 or 3 bottles at the proper temperature for ear irrigation, and much time is saved by having the solution ready for immediate use. Skillful manipulation of the cut-off permits any degree of force desired in the irrigation. Bottles are refilled with lukewarm saline solution by the nurse between patients. Saline is made up double strength in large quantities, and the bottles being half filled with this solution hot sterile water is added from the tanks of the hospital sterilizer. While the bottle is being filled the tip is inverted in the electric sterilizer.

It is desired to have a definite routine plan of procedure in all work. After fitting the right eye, both the spheric and cylindric lenses finally chosen should have their handles turned in the opposite direction from the usual. Use lenses in left hand row for patient's right eye, and vice versa. After fitting the left eye, turn down handles also before proceeding to investigate muscle balance or giving presbyopic correction. Then if interrupted or called to the telephone, the correction selected by the patient will not be forgotten. Skiascopy is done working at 0.5 meter, which is just at arm's length, and the Marple skiascopes are held in the left hand of the examiner, which permits rapid exchange of lenses. Careful and accurate skiascopy is done only in small children and illiterates. In intelligent patients, only the approximate refraction is determined, as the trial case is the court of final resort. Working at 0.5 meter, with the light above and behind the patient  $+1.50$  must be deducted, instead of  $+1.00$  S., as is done in the usual method.

Every effort is made by all to conciliate and please every one with whom we come in contact. A "grouch" should always be left at home or dropped on the way to the office. Every business matter, telephone call, or detail

on the record of a departing patient should be cleared away before admitting the next patient, as any preoccupation on the part of the surgeon is resented by the patient. An excellent motto is—"Do it now". Tact and judgment on the part of the nurses are of the greatest value. Tactless, officious or persistent inquiries on her part in the waiting room may exasperate a secretive patient and bring him into the consulting room in a frame of mind which will preclude satisfactory results or return visits.

Tact by a nurse is particularly necessary at the telephone. Many patients refuse to give their names and insist upon speaking to the doctor, who is exasperated to be called to the telephone to be asked his office hours or discuss fees. When asked by telephone my office fee, my reply is, "As much as I think the patient can afford to pay". The question of fees is best adjusted at the time of the consultation, and I have a tentative fee bill on a scale of very poor, poor, moderate, well-to-do and wealthy. The excessive fees of city specialists are responsible for much of the abuse of medical charity, and our profession is as much to blame as the public. If it is distinctly understood that the fee is less than the regular charge, and that the concession is made on account of the patient's inability to pay full rates, the surgeon does not cheapen himself or cut rates.

Feeble or infirm patients, women with crying babies, the man to pay a bill or make an inquiry, can generally be brought in out of turn if the nurse is a skillful general. The patient who is next or almost next and has grown impatient with long waiting feels he is making progress if brought into the nurse's office on some pretext. He will sit and visit with her for 15 minutes without impatience, whereas, he would, perhaps, refuse to wait 5 additional minutes in the waiting room. Needless to say, it is undesirable to have a clock in the waiting room.

Two or 3 patients are often being cocaine-ized or prepared for dressing while both surgeons are occupied. Many eye cases need only be inspected, and the nurse instills the drops and applies the dressing.

After trying out both plans I have almost entirely given up appointment work. With 3 doctors and 2 nurses and an office maid answering the telephone and receiving patients when the doctor is out, any attempt to keep an appointment schedule results in confusion and failure. Nothing is so exasperating to doctor and patients alike, as to have 2 or 3 patients all claiming an appointment at the same hour. Any attempt to regulate the length of a consultation is impossible, one taking 2 minutes and the next 40 minutes.

When patients are late they always have a perfect alibi, flat tire, taxi-man, delayed trolley, going to 310 Main Street, East Orange instead of Orange, etc. After such exasperating delay, to be told on arrival that they are late for their appointment and can not be seen today, they are quite liable to go away angry and not return.

Adenoid and tonsil operations are done at 8 a. m., before the regular office work begins, and the other minor operations are done toward or at the end of office hours.

Patients requiring homatropin are told to come before 10.30 prepared to remain about 2 hours. As such patients are usually prepared to do little work that day, they are permitted to wait even after cycloplegia is complete, that short cases may be expeditiously turned out. When absolutely necessary, definite appointments are made and kept. If waiting patients protest because the appointment patient went in out of turn, their attention is called to the fact that they had no appointment, and that the waiting room door says: "Hours 9 to 1 By Appointment". Patients who demand appointments are required, and can generally afford, to pay maximum fees.

The problem of colored patients has been solved but recently. The very patients who object to sitting in the waiting-room with colored people, are the first to call me by telephone and ask me to treat their colored maid or butler, who, they go to great length to assure me, is a very superior and refined colored person. There is not a colored oculist in the State of New Jersey, and when a reputable and skillful colored physician asks me



to see one of his patients, I feel that I am not a real physician if I refuse. I have therefore set aside one afternoon of each week for appointments for colored people, aiming to do all refraction and routine work on this day. If the case is too urgent to wait until this day I ask them to come at the end of the office hours on other days.

Referred cases are so recorded, and a check mark in front of the doctor's name indicates that the case has been acknowledged. In all referred operative cases the family physician is asked to give the anesthetic or recommend the anesthetist. This is a courtesy to which he is entitled, and if he is not competent a hint is often dropped that the case presents certain difficulties, and an expert anesthetist would be desirable. It is desirable that he send a separate bill for his services, whether anesthetist or assistant at the operation. The readiness with which the family physician takes offense is often puerile, but it must be met and concessions made to him if his friendship is to be retained. It is wisest to prescribe no general treatment whatsoever, but work hand in hand with the family physician in the capacity of a consultor.

About 25 of the prescriptions most frequently written are made up in rubber stamps and stamped up in pads of 50 each. They are designated by numbers like a hospital formulary, and record keeping is thereby greatly facilitated. They are kept in a guide card index and designated by their respective numbers.

Record cards are kept in the straps at the sides of the desk. On the left are kept all cards of patients under treatment, and the cards are put on the right as soon as the case is finished. The completed case cards are filed by the nurse from time to time. Consistency in fees is the aim; on the lower left hand corner of each card is placed in small figures the fee charged per visit. If smaller fee is charged for a subsequent visit, the amount of the subsequent visits is placed after the primary charge. If a refraction case, and a lump sum is charged, the Roman character is used above the price of single visits to designate a lump sum for the refraction. In

this way the various members of the family are charged a like amount. If a patient states that he or she was sent by a friend, the friend's card is found, and if their financial stations compare favorably, the same fee is charged. Otherwise, various inconsistencies may arise. If on the first visit the patient offers to pay a part or all of the fee for examination it is accepted, and above the figures in the corner marked in pencil "Pd". This is entered on the book as cash. No charge items are entered for refraction cases until the case is finished, when, if not paid, the full amount is charged.

Statements are sent out each month—not to all patients, but to those on whose account cards are indicated in small pencil figures the dates, thus: 10/1, 12/1, 1/1/15, etc. After running the gamut of various collection agencies, I have come to hand delinquents over to a collector who collects for several of the largest business houses in the Oranges. His charge is 10% for all accounts above \$5 and 20% for amounts less than \$5. I never sue and practically always compromise for what I can get—\$5 and the patient's good will are better than a bill against him for a large amount. If coerced, he may become a persistent and energetic "knocker". Rarely a sarcastic letter enclosing a receipted bill and making the patient a present of the account results in its being promptly paid.

Many doctors find their bookkeeping a serious problem, particularly since the enactment of the recent income tax law. The system we use is very simple, yet accurate and complete. Each surgeon keeps on his desk a small diary and therein enters all items, whether cash credit, or charge, thus:

John Doe .....	ca.	\$ 5
John Smith .....	cr.	10
Mary Doe .....	ch.	5
Mary Smith .....	ca.	10
Mr. Wm. Henry .....	ch.	5
40 State St., E. O.		

The last charge signifies that Mr. Henry is a new patient, and the nurse opens an account with him. An account card ledger system is kept, and all charge and credit items

are posted to the various account cards. A check mark placed before the name indicates that the item has been posted.

The sum of the charge and cash items each day is the amount earned, and the sum of the credit and cash items is the amount collected. By footing amounts earned at the bottom left hand corner and amounts collected at the bottom right hand corner daily, and adding to preceding monthly totals, and carrying forward to the top of the next page, each page shows at the 4 corners as follows: Upper left corner, amount earned this month to date. Upper right corner, amount collected this month to date. Lower corners, like amounts for the day.

In estimating income tax, give total earned and total collected, designate difference as amount lost in poor debts and concessions to

patients. My associates take and keep all money tendered to them, and at the end of each month settlement is made to them on the basis of amount collected as compared with the share to which they are entitled.

Recently so many complaints were received that our telephone was "busy" that we put in an unlisted phone and every one in the office is urged to use the unlisted phone for outgoing calls leaving the regular phone open for incoming calls. Only a selected few know the number of the unlisted phone. We are subscribers to the Physicians' Bureau of the Oranges, and find it of great advantage.

In conclusion, let me advise—be ever ready to reexamine for glasses the eyes of a dissatisfied patient. Findings are often markedly at variance within a month, or even less. Make no promises. Be honest. Never worry. Do your best—angels can do no better.

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## NOMAD

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When night, with long, gray hands, bends down  
To leash her sunset tiger,  
I wonder if she does the same  
Along the River Niger?

When pilgrims go to Taj Mahal  
That sacred temple-gem—  
I wonder if there's room for me  
To worship there with them?

When Himalayas dent the sky  
With bigness—crude and simple—  
I'd like to clamber up their face  
And settle in a dimple!

I'd like to go to Trinidad  
For nothing but to look!  
I'm tired of only knowing things  
Through some descriptive book!

I see the ceiling and the walls;  
I see the polished floor,  
And some day, in my restlessness,  
I'm going to see the door!

Sonia Ruthele Novak—N. Y. Times.



# JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

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## COUNTY SOCIETY WORK

With the advent of October, most county medical societies enter upon a new period of activity; three-fourths of the component societies of this state hold the first of their autumnal sessions in this month, and with most of them it is the "annual meeting", the one at which election of officers is held and policies for the ensuing year are determined. The October meeting is, therefore, in some respects the most important of the year for the majority of our local organizations. The medical profession of New Jersey may well take pride in the fact that every county in the state has an organized society and that in very nearly every instance such organizations are in a flourishing condition.

Several of these societies have during the past 2 years increased their frequency of meeting, some from semiannual to quarterly, others from quarterly periods to 8 or 9 sessions a year, and in practically every instance the change has resulted in an increase of attendance and development of greater interest in professional affairs. In a few counties, organization of a woman's auxiliary seems to have helped to swell the attendance at regular meetings of the parent body.

Having spent a goodly portion of many years attending medical meetings of one kind or another, we take special pleasure in congratulating the societies of this state upon the excellence of their scientific programs. Even in the societies of small membership and meeting in places remote from large hospitals or medical schools the average program is of high character.

Success of any society depends in large measure upon the inspiration and activity of its officers. Particularly is this true of the secretary; a live, thoughtful, energetic secretary can make a society, while a careless, disinterested, negligent secretary can kill one in short order. A conference of the county society secretaries and reporters was held in June at Atlantic City, through the courtesy of President Green, and their discussions, printed as part of the State Society Transactions, should be read by all members who are interested in having their own organizations work efficiently.

Only slightly less important than the secretary is the individual member; it is, after all, upon him—and that means upon *you*—that the truly successful growth and work of the organization depends. In his presidential address to the California Medical Association, Dr. W. T. McArthur referred to the duties and privileges of society membership as follows:

"While there are countless organizations engaged in some form of medical service, the main stem of organized medicine in the United States consists of national, state and county associations. The county society is the unit; its efforts and desires, reflected in the activities of the state association, indirectly influence the whole policy of our national organization. It logically follows that organized medicine depends for its success upon the honest effort and desire of the individual doctor to promote and perform the needful duties of his county society. The average physician is inclined to look to the national or state asso-

ciation for the bringing about of results, but he should look nearer home. The work of his county society, and especially of his own individual self, are the 2 main factors that will influence the evolutionary process in the direction of progress."

"Every physician should resolve to let the meeting of no other organization come before that of his county society. Its field is sufficiently large for the mutual, intellectual and scientific betterment of its members, and furnishes ample scope and opportunity for all efforts to improve and protect the health conditions of the community. On its walls there hangs an invisible sign, 'Workers Wanted'. The remuneration is intangible. It consists in that sense of satisfaction which comes to the heart of the worker through the knowledge of duty performed, and which is a greater compensation to life than anything received in pay envelopes."

As the new fiscal year of the county society opens let each one of us determine that this season we shall be regular in attendance, punctual in arrival, and that we shall actively participate in the work, both scientific and business, contributing something more than "dues" to the organization's welfare.

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### PUBLIC RELATIONS

As mentioned editorially last month, the recent Tristate Medical Conference devoted its session to a consideration of public education in medical matters, occupying about half its time discussing the broad general question, and giving the balance to the specific problem of engaging public interest in the antidiphtheria campaign. We published in the August Journal the first portion of the transactions of that conference, and wish to again direct attention to the excellence of Dr. Hammond's presentation of the public education question—a summary of what has been attempted and accomplished in some few states; a logical analysis of conditions confronting the profession, with emphasis upon the just demands of the public for authentic information; a succinct outline of policy and procedure for adoption by state and county societies. We can-

not recall having published in the Journal any paper of greater import to our members. Again we ask every member of this society to read Hammond's carefully prepared review and to think about application of his remarks to your own locality.

At the recent annual meeting of our state society, more discussion was aroused by the educational program than by any other one subject. Consensus of opinion strongly favored continuance and further development of that program, but effective results are not to be obtained by merely voting adoption of a resolution and provision of funds. Progress will be slow and satisfactory results will scarcely be attained if the devising and promotion of a plan is left entirely to any one individual. It is not strictly a one-man job, even if he were employed to devote himself to that task exclusively. There are "a thousand and one" things to be done; there are many different possible ways of doing some of these things. The subjects to be presented are not of equal importance in every county; the needs and the interests of people living in factory communities may be utterly different from those of rural districts. The mode of presentation, the diplomatic approach, and the self-interest appeal may have to be varied in order to capture the artisans in one district and the farmers of another. While plans for a more comprehensive program are in process of formation, tell us what your community requires.

Local needs and local states of mind, as well as local facilities for coöperation, must be considered, and we respectfully suggest that each county society shall provide some means of assistance in solving this educational problem. Whether you call it an educational, a public relations, or a welfare committee, matters little; the essential factor is that each component society should have a committee to advise about local needs and opportunities, to assist in developing local campaigns and combining local influences, and to serve as contact agency between the society and the laity, not forgetting to utilize now as an intermediary in many instances the newly organized woman's auxiliary.



## In Memoriam

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CANNING, Charles Hewson, Mannheim Apartments, Atlantic City, died August 26, after a lengthy illness, at the age of 44.

Dr. Canning is survived by his wife, Alethia, former resort nurse; daughter Mary Gayle, and sister, Mrs. M. J. McCandliss.

The son of a Chester County, Penna., farmer, Dr. Canning was born at West Chester, that county, on July 5, 1882, to Robert John Canning and Rachel Hull.

He was educated at grammar and high schools of West Chester after which he entered Lafayette College, from which he was graduated in the class of 1904 with the degree of A. B.

After the completion of his course at Lafayette, Dr. Canning entered the medical school of the University of Pennsylvania, graduating from that institution with the degree of M. D., in the class of 1908.

Following his graduation from Pennsylvania, Dr. Canning was appointed an intern at Mercy Hospital, Pittsburgh, Pa., whither he had gone after receiving his degree, and filled this position for about a year and a half. Returning to Philadelphia, he resumed his internship at various hospitals there, finally coming to Atlantic City to practice in 1912.

Dr. Canning was an ex-president of the Atlantic County Medical Society, a member of the Delta Kappa Epsilon and the Phi Alpha Sigma, the Pepper Medical Society of the University of Pennsylvania, the Atlantic City Rotary Club, Belcher Lodge of Masons, the New Jersey State Medical Society, and the American Medical Association.

He was made a first lieutenant in the army medical corps in 1917 and was stationed at Camp Jackson, Columbia, S. C., that year.

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BEW, Richard, was born in Germantown, Pa., July 9, 1882, the son of James T. Bew and Elizabeth Thorrogood. About a year later, his parents removed to Atlantic City. Here, he subsequently attended the public grammar and high schools. Upon graduating from the latter, he entered Jefferson Medical College and received his doctorate of medicine in 1910. For two years thereafter, Dr. Bew engaged in hospital work in Philadelphia, upon the completion of which he became established in medical practice at Atlantic City.

In 1907, he married Elsie Gould of Atlantic City. Two surviving sons, Walter and Richard Bew, Jr., were born of this union.

Dr. Bew was elected coroner of Atlantic County in 1914, and filled this office for two years. Almost concurrently, he served as one of the county health officers. During the World War, he was commissioned in the medical department of the United States Army, being promoted eventually to the grade of lieutenant-colonel.

Dr. Bew was a member of the Atlantic County Medical Society and also of the Philadelphia Medical Society. He was an influential worker for the attainment and maintenance of the high standard of Atlantic City Hospital, being chief of its medical service and a member of its board of governors. Because of his great love for aquatics, he took an active interest in safeguarding the beach-front. He was consulting surgeon of the beach patrol, but often substituted as a life-guard to participate in a rescue. Fate decreed that he should meet death in the water from which he had saved many others. On September 4, 1927, while taking a long distance swim, he was run down by a power yacht and fatally injured by its propeller.

## Special Article

### REGULATION OF PHYSICIANS BY LAW

#### (Ninth Article)

In this series of article we have endeavored to present one at a time, for easier digestion, the several important features of Harry Eugene Kelly's very excellent brochure on the Regulation of Physicians by Law, and to illustrate to some extent the local application of such points. The primary object has been to induce members of the profession to read and ponder upon these items so that they may be better prepared to meet the specious arguments of cultists and the questioning of legislators or laymen in general regarding existing or proposed medical laws and the attitude of the profession toward such legislation.

As pointed out in last month's article, the regular members of the medical profession believe that "all persons who treat the sick, as an occupation, should be required to measure up to the same reasonable scholastic plane, be submitted to one and the same just standard of knowledge and skill, and be required to pass the same tests in the same fundamental subjects, before being permitted to try to heal the sick according to any method of treatment whatever, because all of them, initially, are expected to do the same thing. The state has no interest in cults, but it has a vital interest in educated, skilful, honest physicians able to diagnose and distinguish between various ailments and to direct the application of remedial agents thereto. When acts regulatory of this occupation shall be written, apart from the influence of healing cults on legislators, and exclusively on the basis of public health interest, they will embody this principle".

Concerning the toleration of existing conditions, and the desirability, nay the necessity, of working for a satisfactory change, Kelly may again be quoted:

#### Not Necessary to Tolerate Present Bad Methods of Regulation

For a long time to come we shall doubtless have to continue to get along under a considerable variety of legislative methods of legal regulation throughout the country, some of them good and some of them bad. But is it not necessary for advocates of reasonable standards of educational requirements to tolerate as bad methods of legal regulation as those now prevailing in

this country. Existing acts are framed upon the false notion that the many healing cults perform substantially different services, and, therefore, should be subjected to varying standards of educational requirements according to an imaginary idea of the amount of instruction guessed to be necessary in each service to qualify a doctor, not scientifically to recognize a specific disease to direct the application of a proper remedial agent thereto, but merely to apply one certain remedial agent, regardless of the healer's ability to recognize and differentiate the various maladies and ascertain and apply the various remedies and kinds of treatment applicable thereto; whereas disciples of all cults, in their practice of the healing art, are forced by practical circumstances to do precisely the same thing, if they do anything at all, viz., to try to diagnose a specific ailment and ultimately to try to apply or direct the application of the particular remedial agent or method most available under the peculiar circumstances of the individual case.

#### Selfish Interests Are at the Bottom of Low Standards

The prevailing multiple statutes put the cart before the horse. They have been framed under the high pressure of selfish, thoroughly organized, extravagantly paid lobbies of one idea and one purpose that persistently throng legislative chambers and propagate error, seeking means for their own profit through improvident legislation, substantially unopposed by any sufficiently organized rival force devoted zealously to supplying to legislators correct information upon the serious subjects involved. The ill prepared doctor who becomes the champion of low standards is commonly engaged in trying to perpetuate his existing means of livelihood without further preparations, and, therefore, spends his money lavishly, devotes all of his time if necessary, and fights hard to win. The skilled doctor who becomes the advocate of reasonable standards is commonly working against his own interest, impelled by an earnest desire to protect the public health and to make his profession honorable, learned and efficient. But the issue does not involve his bread-and-butter pursuit. He, therefore, presents his information, offers his advice, and departs. His adversaries stay on the job.

#### Prepare a Bill for a Uniform Law

The fact that our states maintain widely differing regulatory types of legislation on this subject, and that in nearly all of them the statutes are subjected to constant contention and frequent change, has given rise to the suggestion that a committee of persons familiar with the topics to be considered, and representative of all of the states, be assembled to carry on a thorough investigation of the domain and purposes of such legislation and to prepare a bill for a uniform law to be presented to the legislatures of all of the states.

This suggestion is a wise one, and should be put into execution by an association maintaining a sufficiently capable administrative organization to carry it through. There is no fundamental reason why different systems of regulation should obtain among the various states. The subject involves only a few general principles, which apply equally in all of the states, and upon which students of such matters would final-



ly come to substantial agreement. A committee so organized should take five years to make such a study and prepare such a bill. The work of preparation would necessarily involve a much needed campaign of conference, study and education among physicians and laymen throughout the country. The activities of such a committee would undoubtedly result in the formulation of a sane bill, acceptable to the people of the country and wisely framed for the suppression of fraud and the promotion of the public health. The time is ripe for such a venture.

At a meeting of the Welfare Committee of the Medical Society of New Jersey, February 13, 1927, Dr. Morrison called attention to the first article of this series, which had then just appeared, and said: "It seemed to many of us, 2 years ago, that the Kelly article was the last word in explanation of existing conditions and that the only question was: how to work out an answer that might be brought into law? In a recent issue of the Journal of the American Medical Association, Dr. Woodward discussed this question and presented for general consideration a model for a state "basic science" law for regulation of the practice of medicine; this model being similar to the laws quite recently enacted in the states of Wisconsin and Connecticut. It is proposed that examinations shall be held by a special board of examiners appointed by the governor and to be associated with the state department of education. The license awarded by this board would permit its owner to pursue further study in any department of medicine, because he had shown himself properly educated in the fundamental English subjects. After an appropriate period of study and passage of a special examination on fundamental medical subjects, the individual might then secure a license to practice any theory of medical therapy he might choose. This method would seem to guarantee a sound basic, fundamental education for all applicants for medical licensure, and we can then trust them to apply any mode of therapeutics they see fit to adopt. Such a law would protect the public in a manner not hitherto attained, and I believe the time is approaching when we should recommend this plan as a substitute for what we now have."

In the discussion that followed Dr. Morrison's reading of the Woodward Basic Science Law, many members of the committee expressed approval of the plan, and a special subcommittee was appointed to study the proposition carefully and report recommendations. In our next article we shall reprint the Woodward proposition and, possibly, the views of our committee.

## Medical Economics

(Reproduction of an editorial in the Ohio State Medical Journal, June, 1927.)

The economics of medicine is one of the vital problems of modern practice. Its scope may be said to be as broad and complex as civilization itself. Every cross-current and eddy of community life and thought is reflected through some phase of medical economics.

Albert T. Lytle, University of Buffalo, who has been teaching this subject for years, has undertaken to define and explain the term in a current issue of the Bulletin of the Association of American Medical Colleges.

"Political economy—economics is one of the general topics of a broad education", Dr. Lytle explains, "Medical economics applies the broad principles of general economics to the narrow field of medical practice. Fifty years ago, political economy was almost an esoteric subject; today economics is an important part of nearly every commonplace social problem. General economics treats only of questions involving wealth and the satisfying of material wants. Its questions are very distinct from those of morality and ethics and from those of jurisprudence. Its topics include a consideration of the progress of civilization, government regulation, population, credit, industry, supply, demand, production, exchange, interest, distribution, socialism, taxation, banking, superintendency, labor, wages, strikes, and many others."

"Medical economics treats of such portions of general economics as particularly influence the welfare and the activity of the physician. In particular it considers such professional topics as medical education, licensure, types of practice, organization; such social topics as public health, sanitation, drug addiction, prohibition, birth control, venereal disease, prostitution, degeneration, marriage, youth, euthanasia, insurance, industrial disease and as well such particularly individual topics as income from practice, accumulation of wealth, investment, expense, fees, accounting.

"Heated discussions over encroachments of boards of health, quackery, advertising, fee-splitting, expert evidence, medical legislation, lodge practice and delinquent debtors have occupied the time and attention of infrequent society meetings and gave rise to caustic resolutions that produce little, if any, result.

"In 1914, a workmen's compensation law went into effect in New York. Insurance carriers put over medical fees and regulated

service thereunder that still are causing complaint and agitation and futile attempt at corrective legislation. In the next succeeding years compulsory health insurance, with its panel practice, annual registration, group practice, industrial medicine—all vitally important economic problems—pushed their way to the front demanding attention not only of the officers but as well of the members of medical organizations.

"Society and committee conferences, conversations and discussions on economic problems showed quite clearly that the average practicing physician had a woeful lack of knowledge of, an inept approach to, and an inability successfully to argue on economic problems, although his income and freedom were seriously jeopardized."

Through the medium of medical organization, Ohio physicians for many years, have recognized the serious aspects of medical economics. An examination of the annual reports of State Association committee, published in the May issue of *The Journal* will present a brief summary only of what has been undertaken and what has been accomplished. Developments and activities of local medical societies and academies of medicine further emphasize the important place medical economics occupies in medical practice and the future of scientific medicine. The annual addresses of the President and President-Elect in this issue also emphasize these problems.

Medical economics, benefits and hazards, demonstrate daily the need and value of active coöperation and direct interest of the individual physician in medical organization. And this is one reason why organization in Ohio is a virile, extremely sensitive medium for the translation of group thought into action and accomplishments.

## Esthetics

### AMERICA'S GREATEST POET—WALT WHITMAN

(From the Evening Courier, Camden,  
June 1, 1927.)

Paying tribute to Walt Whitman as the greatest literary figure America has produced, and to Camden as the city that is preserving and cherishing the Whitman tradition, noted figures in contemporary literature last night attended a banquet at the Hotel Walt Whitman in observance of the 107th anniversary of the "good grey poet's" birth.

The Chairman of the Executive Commit-

tee of the Walt Whitman Foundation, Dr. Alexander MacAlister, outlined that organization's aims, as follows:

"To give effect to the idea of an annual pilgrimage to the home and tomb of Walt Whitman, and a banquet to his memory, the Walt Whitman Anniversary Committee was organized in November, 1925, with Doctor Alexander MacAlister as Chairman, James D. Law as Vice-Chairman, and Mrs. Juliet Lit Stern as Secretary. Mr. Herman Livezey, the Curator of the Whitman home, has since been added as Treasurer.

The other members of the Committee are Former Judge John W. Wescott, John W. Taylor, Miss Agnes Repplier, Dr. Felix E. Schelling, Harrison S. Morris, Hon. Victor King, Hon. Winfield Scott Price, Mrs. Stanley Addicks, William H. Ketler, Mrs. George W. Tash, Samuel Murray, Waldo R. McAmis, Mrs. Allen Drew Cooke, Vernon Whitman Rich, Frederick von Nieda, Oscar Lion, John F. Harned, and J. Duncan Spaeth.

In 1926 this Committee organized the Walt Whitman Foundation, and automatically became the executive committee of the Foundation.

Coupled with our interest in Walt Whitman's house as a literary shrine, the purpose of the Walt Whitman Foundation is to promote Whitman fellowship, and advance all things cultural. As a result of the first season's efforts, 10 lectures and readings were given at the Whitman house; 3 of the series were by poets, who read from their own works, and 5 by professors, who lectured on poets and philosophers; then we had talks by 1 scientist and 1 critic.

A more elaborate programme is planned for next season. Among those already listed are Carl Sandburg, Rufus M. Jones, Roy Helton, McKnight Black and Langston Hughes. Arrangements have also been made for a monthly programme of music.

As to the future of the Foundation, we hope to develop into a college of the arts and sciences.

Some of you know that I attended Walt Whitman, as a medical practitioner, in his last illness, and I am glad that it has fallen to my lot to be a participant in this organized effort to preserve and develop his home as a literary shrine for all the world. It is commonly believed that disillusionment comes from living with a genius. In other words, that a great man is a very ordinary person to his valet, his family and his physician. I can honestly say that, through all the years I knew him and attended him, Walt Whitman impressed me as a remarkable character, and was a genuine inspiration to me. To sit and talk with him was



to experience an uplift in thought and feeling. Like a mental panorama, man, with his best and worst traits, passed before me as Walt talked, and I always left with the conviction that man's best traits would eventually win out. Walt glorified human kind, and in his own life and attachments never did anything—to my knowledge—to cast doubt upon his own sincerity or damage the faith that he implanted in me and others.

I believe that Walt's influence will continue to grow, and that some day, to the betterment of all mankind, we shall understand him better than any of us do now. One remark about Walt has impressed me since it was made, and that is the remark of Mr. Christopher Morley that we have not yet begun to understand Walt Whitman. Some of us may want to qualify that remark, but all of us are anxious to hear directly from Mr. Morley himself, who is our guest of honor today.

I have the pleasure of introducing Mr. Morley."

### Address by Christopher Morley

"I don't believe that Walt Whitman was much for foundations, institutions and mural paintings, so be careful that these automatic things don't get ahead of—Walt," Morley said. "It is hoped that the splendid start of the Walt Whitman Foundation will become a perennial source of inspiration. The vitality and durability of the poet's great temperament have permeated and transfused the places in which he lived—you can feel him underfoot when you enter them."

### Taxi Driver in Shrine

Morley recalled a visit to the Walt Whitman house some years ago when he was a Philadelphia newspaperman, contrasted it humorously with the poet's shrine which the city and the Walt Whitman Foundation have preserved today.

"I found the house inhabited by an Italian taxi-driver, who had filled it with children and rabbits," he said. "Under a bunch of junk in the back yard I found a queer old battered terra cotta bust, which looked as if it might have been a bust of Walt himself. But the bust had no nose, and Walt, even in his notorious carelessness about his appearance, never went quite so far as to forget his nose.

"I have heard of Camden's observance of Walt's birthday in the past, but I am astounded by this gathering. I did not know that this banquet was to be as fine a thing as it is. I thought there would be a few—but not like this.

"I hope it won't get too fashionable to be fond of Walt," he continued. "I'm a little bit startled at the number of evening clothes here, but—don't count this as part of the speech—I find that where there are hard-boiled shirts there are not many hard-boiled people.

"One thing that is slurred over often in a consideration of Walt's work is that he really was a fine and delicate artist in the most highly technical sense. In little flash pictures, little glimpses of men and women, conveyed, often by a word or a phrase, not even a whole line, again and again I am re-astounded by his virtuosity as an authentic artist. When he describes a carpenter's plane in a workshop, you want to go and see that plane, to see if he had the right word for it. And Walt always did have the right word.

### Against Expurgating Works

"But humorous phases of his genius, oblique contours of it, obscure it. The old-fashioned Buddhist felt that it was a sin to give back his body to his maker at death less perfect and whole than it came on earth—so he kept in a box his life-time clippings of hair, toe-nails and finger-nails.

"I'm afraid there's a little of that in Walt—he insisted on giving to the public his toe-nails, his finger-nails and everything he had. Some sound critics believe his work should therefore be expurgated on moral grounds. I don't believe this is so, though Walt did err in including all his toe-nails occasionally.

"Some of his work that has been criticized on these grounds, is not so much a matter of bad taste as of temporary lapse of the sense of humor.

"He praised Americans too strongly, but after all he had never been abroad. He lauded everything American—American beards, American amateness and American deathless attachment to freedom, when as a matter of fact the French exceed us in all—beards, amateness and attachment to freedom.

"Liberty and freedom he desired for the plain man—which a plain man does not want for himself. Common people are terrified at liberty and freedom and abolish them whenever they can.

"But Walt nevertheless did the greatest thing in a spiritual way that any human being can do. He abolished, or at least mitigated loneliness. He wrote for lonesome people. He believed that 'something there is more immortal than the stars', and as he said himself, he was not contained between his hat and his boots."

## Observations from the Lighthouse

### PERIODIC HEALTH EXAMINATIONS

As we departed last month from the usual review of medical science and used this space for observations upon public relations of the physicians, we shall this month abstract a series of articles bearing upon an intermediary question—physical examination of the apparently healthy individual—which has been much talked about during the past few years. We may hope thus to throw some additional light upon problems that have been submitted in the all too hasty discussions developed when this matter has been submitted at county society meetings. The articles we have selected for quotation were all prepared by men who have had considerable experience in presenting this subject to the profession and they cover a variety of questions, from technic of examination to the manner of supplying a report.

#### Periodic Health Examinations: Education of the Physician

"My choice of practice," says Louis F. Jermain (*Wisconsin Med. J.*, 26:253, May, 1927), "would be an examination of the well and the giving of advice as to how to remain well".

The success of periodic health examination depends, he believes, upon 2 factors: (1) Education of the public as to its importance and the benefits to be derived; (2) education of the physician as to the scope and proper conduct of such examination. The objectives are: to cure disease, to prevent disease by detecting it in the early stages, and to increase economic efficiency and happiness—in a word, to prolong life. This type of examination should consist of a complete inventory of the functions of the mind and body of the individual, obtained through a complete and accurate history, physical examination and necessary laboratory tests. The most important part is the history. A well conducted inquiry into the family and personal history will lead to more information of importance than the combined physical and laboratory investigation will disclose. The family history will indicate hereditary tendencies of mind and body, and the individual history will record events which may have resulted in damage to either the physical or mental structure: diseases the patient has had; his psychic reaction to pain, sorrow, misfortune, work; sleep—how much he gets, how much he needs; food, amount and kind.

Careful inspection is the most reliable method for disclosing the actual physical condition of the individual and gives valuable information as to nutrition, color, expression, posture, gait and emotions. Each region of the body should be carefully scrutinized—head, eyes, ears, mouth, teeth, throat, neck, chest, and so on until the entire body has been covered. Palpation of the body should next be carried out. Most cardiac abnormalities and many pulmonary disorders can be accurately diagnosed by inspection and palpation alone. Practically all abdominal conditions

must be diagnosed from the history and by means of inspection and palpation.

It has been stated that periodic health examination would fail because of the cost of laboratory work, but as we are dealing here with presumably healthy persons the only laboratory examination necessary as a routine is a urinalysis and occasionally a blood count. This can be carried out without much additional cost. Furthermore, a periodic health examination can be given just as efficiently by the rural practitioner as by the city physician. All that is necessary is proper training—an intelligent use of our special sense and the mind to interpret what these senses reveal. Every experienced physician knows that a large percentage of the suffering of the human race is not physical, not even functional, but mental; hence the importance of a careful survey of the patient's hereditary and acquired mental characteristics. Proper advice and guidance in this field is the only certain way in which it is possible to reduce the population of eleemosynary institutions.

An efficient and satisfactory health examination is more difficult than an examination of the sick. The sick individual comes with a definite complaint which can be investigated and analyzed. The health client has no complaint, and any deviation from normal must be elicited by a thorough and well-conducted exploration.

#### A Practical Method of Periodic Health Examination.

So concise and explicit is Francis Ashley Faught in outlining the actual technic (*Atlantic Med. J.*, 30:506, May, 1927) that it is difficult to abridge his article. It should be read in full. One point which he emphasizes is the importance of the time element in health examination work. No examination should be so exhaustive that the time required to complete it will put its cost beyond the average patient's means. This is an essential point if health examinations are to become popular, because if the cost of the first be too great, the patient will be deterred from returning at the proper time for reexamination. About 1 hr. is required to complete the examination as outlined upon the forms arranged by the author. This is possible, however, only when someone acquainted with medical terms and familiar with the printed forms is available to fill them in.

Most persons examined will be found to have some impairment (the majority more than one) of which he is usually unaware and which could have been prevented by earlier examination.

A satisfactory health examination should include a record of gross abnormalities of the bones, joints, spine and feet; condition of the skin, noting eruptions, moles, warts and birthmarks; appearance of the mucous membranes, conjunctiva and sclera; condition of the superficial vessels, both arteries and veins, and the presence and location of cyanosis. Body conformation, build and posture, weight and height, should be compared with normal. The chest in expansion and contraction, abdominal girth, height and breadth of abdominal cavity should be recorded in inches or centimeters. Localized accumulations of fat and other enlargements, such as the thyroid and lymphatic nodes, are of importance, as is the condition of the musculature, with special reference to the condition of the abdominal wall.

Gross defects in ocular movements and vision are noted; also the condition of the pupillary re-



flexes. If glasses are worn, the age and origin of the present prescription are recorded.

The nervous system should be observed only from the standpoint of gross abnormalities and the commonly elicited deep tendon reflexes, including Romberg's sign.

The condition of the mouth, including teeth (whether dead, capped or missing), the ability of the patient to masticate properly, presence of malocclusion, pyorrhea, recession or gingivitis, should be investigated and the date of the last dental treatment noted. Tonsils, including anterior pillars, tongue for furring and tremor, and pharynx should all be carefully inspected. The nose should be examined for obstruction, and condition of septum, ethmoids, inferior turbinate and mucous membrane. The ears should be examined for canal obstruction (cerumen or disease), condition of the membrana tympani noted and the fork and other rough tests of hearing applied.

The chest should be gone over very carefully by percussion and auscultation, and the type of costal angle noted. Examination of the heart should include its transverse diameter in relation to the transverse diameter of the chest, as the radiologist has shown conclusively that this relation is a better criterion of heart size than its actual measurements. The heart should be outlined, the 4 valve areas studied, and findings recorded. Blood pressure, systolic and diastolic, should be estimated both standing and reclining and the heart work test then performed while the patient is in the recumbent posture.

The abdomen should be carefully palpated and all abnormalities noted (irregular contour, rigidity, undue relaxation, localized tenderness, and masses), especially in the region of the appendix, gall-bladder and stomach.

Women should always be examined by vagina or rectum, while in men hemorrhoids, fissures, prostatic enlargement and hernia should be sought. If the examiner's attention is directed by any unusual finding to a particular organ or part during the examination, then naturally a special study should be made of that region.

In order to interest his patients and acquaint them with the value of periodic health examinations the author has a form letter mailed to a member of the household of each one on his list. Upon receipt of an inquiry regarding the examination the patient is promptly supplied with 2 question sheets covering family and personal history, environmental data and social status, also directions for the accurate collection of a 24 hour specimen. On completion of the examination the patient is dismissed without discussion or comment as to findings. Later, the records are carefully studied and all abnormalities checked with red. A summary of findings and advice is then drawn up and mailed to the patient. The most frequent advice given in the author's experience was a request for dental roentgenograms; the next was to consult a nose and throat surgeon. Several were advised to have gastrointestinal x-ray studies made and others an x-ray examination of the chest and heart. Corrective shoes and abdominal supports were prescribed in a number of cases.

Faught believes that the health examination is of great value in the study and management of all patients coming under the observation of the general practitioner.

#### Responsibility for Life Extension

In a series of 3 articles on periodic health examination (*Atlantic Med. J.*, 30:344, March, 1927),

Walter F. Donaldson calls attention to the fact that public opinion is behind the movement and he asks if the individual members of the medical profession are sufficiently alert or equipped to do their share in meeting the demand. This public demand is being capitalized, he says, by organizations which offer for sale the services of examining physicians. Should this demand be met by group methods or by competent individual medical practitioners?

Much of the progress in life extension made in the last 50 years has been by mass methods. Drinking purified water and milk prevents intestinal diseases but requires no intelligent co-operation on the part of citizens of modern municipalities. To overcome, however, by personal methods the apathy or disbelief of individuals in regard to the preventability of many other diseases is directly the responsibility of the medical profession. Lay education and periodic physical examinations are powerful weapons in at least postponing the development and fatal outcome of many diseases and states peculiar to adult and advanced years. What then shall be the contribution of the physicians of this day and generation to this means of further adding to the health and happiness of human beings? Will they wait, as did a noisy minority in the days of Dr. Trudeau, for mortality experience to support the advanced ideas suggested by today's enthusiasts for life extension, or will they aggressively aid in the battle to extend man's average span of life by postponing the development of degenerative diseases in the individual?

#### The Technic of Periodic Health Examinations

In the second of these contributions Orlando H. Petty stresses the point that the examiner must be deeply interested in the subject, must be enthusiastic about health examinations, and he must manifest and have a very keen interest in the person examined. "Now that we have health-service meetings, we should emphasize the fact that this is a form of medicine which amounts to detecting disease in the predisease state, and that it requires special training. And yet most of the speakers who discuss this subject arise and tell us that everybody is equipped to do it; that it is nothing but the ordinary physical examination that we were taught at college. With this I absolutely disagree."

In explaining the different approach to this sort of practice, Petty goes on to say that, while all graduates of medical schools today know how to make a physical examination that will detect the disease of which the patient complains, when we come to detecting the predisease states the technic is entirely different. In the matter of the sinuses and teeth, for example, when the ordinary physical examination is made the mouth is looked into, the tongue glanced at, the tonsils probably have a reflected light thrown at them, and that is all. As a rule, no note is made of whether teeth are devitalized, no transillumination is used to see whether there is infection of the teeth or sinuses, and there is no special x-ray study of the other parts of the body that are liable to be the seat of infection which many of us believe is the cause of presenility. Examination of the body of a patient who presents himself for health examination should be a search for abnormalities, from dry hair to brittle toenails, and unless that is done we are not rendering proper service.

If physicians are going to meet the demands of the public they must rouse themselves from

lethargy and familiarize themselves with all the recent developments in diet; must keep posted in regard to recent observations on hours of work, position at work, surroundings while at work, whether it be mill or office; must learn what is the best exercise for different types of people. And after all the information, such as is outlined on the service sheets of the American Medical Association, is searchingly brought out, the physician must then be qualified to give proper advice to the examinee, not only in regard to his physical defects, but also in regard to his habits of living, even enquiring into his financial status and making the measures advocated suit that.

Such service cannot be rendered with the training received in medical school. Physicians must today be masters in the specialty of periodic-health-examination service, life extension and prolonged efficiency. The public is now demanding more of the physician than a diagnosis which is confirmed at the autopsy.

### Recommendations for the Examinee Following Health Examination

In the third paper Lawrence Litchfield outlines the follow-up of the health examination. The examinee, he says, should be dismissed with the promise of an abstract of the report which will be sent as soon as possible to his regular medical adviser. If he has none the report should be sent to one whom he shall choose from a list of competent men furnished him. It is often well to strengthen the cause of the periodic health examinations by mentioning the fact that the leading life insurance companies have demonstrated their value and shown their faith in them by offering to pay for these examinations for their policy holders. A most careful summary of the findings and proposed advice should then be made, which forms the basis of a carefully written letter in which all abnormalities are noted and their probable relation given. The letter should vary according to the intelligence and education of the examinee. It may be advisable to include a list of reliable specialists from which he may choose for the more thorough study of some particular region of the body. The letter itself must be most tactfully worded; a printed circular letter is less apt to give offense than a written letter with its more personal application. A copy of this abstract should be enclosed in the report to the medical adviser. If the examinee is a patient of the physician making the examination he should be gone over as thoroughly as if he were a stranger. Nothing should be taken for granted.

Subsequent examinations should carefully bring the records up to date, and all records should be kept in writing. It is advisable to maintain a most optimistic attitude throughout the examination, and any abnormalities that are discovered should be treated as lightly as possible without suggesting that they are unimportant.

## Lay Mirror Reflections

### PROTECTION AGAINST RABIES

(New York Times, July 6, 1927.)

While the veterinarians argue for and against the inoculation of dogs against rabies, and city and borough Governments enforce and suspend muzzling ordinances, rabies increases.

Every day in the vicinity of New York men,

women and children are bitten by dogs running loose. Most of the dogs are doubtless not mad. But the authorities appear to have no rational and settled policy of dealing with conditions that produce the fear of hydrophobia. The other day on the Hempstead golf links a police dog ran amuck and his victims are now submitting to the Pasteur treatment so as to be on the safe side.

There seem to be two schools of thought about the dog: that he is a faithful friend of man and very seldom goes mad, and that he is generally mad when he bites and therefore should always be muzzled. As there is abundant evidence that rabies is not imaginary, and is getting too frequent for comfort, the first consideration should be the protection of people, not dogs. In England it has been demonstrated that a muzzling law, enforced without fear or favor, will ultimately eliminate rabies from a given district. That dogs should be muzzled always, even when rabies has been banished, can hardly be contended. In suburban communities where no case of rabies has been heard of for years it would not be unreasonable to suspend a muzzling order. In crowded cities the difficulty of keeping all dogs under surveillance may warrant a permanent muzzling requirement. There are far too many dogs in New York City, and even in the suburbs.

The question is not to be settled offhand to suit partialities or prejudices. Dog owners should be made to understand that rabies is not a fanciful disease or one of rare occurrence. On the other hand, municipalities ought not to build their policy upon the fulminations of dog haters. If a case of rabies is proved at the laboratory, everybody's dog should be muzzled for a sufficient period. There ought to be investigation without delay of every suspected case. Policemen should be trained to recognize true symptoms of rabies. To many sick and harmless dogs are shot. Every town ought to have an active S.P.C.A. and a decent dog pound. The keeping of dogs by persons who neglect to take care of them should be discouraged. There should be education about breeds that are not vicious.

### KIWANIS AIDS ANTI-DIPHtheria CAMPAIGN

(Atlantic City Press, July 17, 1927.)

Final arrangements for the annual state convention were completed at a meeting of the district trustees of the 56 Kiwanis Clubs of New Jersey held Thursday afternoon at Lake Hopatcong. The convention will be held in Ocean City on September 29, 30, and October 1, it was announced by the committee in charge.

The trustees heartily endorsed the anti-diphtheria campaign which is being carried on by the State Medical Society, of which Dr. Walt P. Conaway, of Atlantic City and trustee for this district, is president. They agreed to coöperate with the movement which advocated the toxin-antitoxin treatment for all children up to 15 years of age.

### SCHOOL DOCTOR URGES SCHICK TEST FOR CHILDREN BE MADE COMPULSORY

(Newark News, June 28, 1927.)

Though approximately 40,000 children in this city have been given the Schick test to discover their susceptibility to diphtheria, Dr. H. L. Fuerstman, clinical assistant in the department of medical inspection of the schools, is far from satisfied, feeling that all children should be given this pro-



tection. The two things needed now, as Dr. Fuerstman sees the situation, are that parents should be urgent in seeking to safeguard their children and that family physicians should be more alert. Public health officials at present work almost alone in the matter, he said yesterday in discussing the subject.

Of the children tested about 26,000 have been handled by the public school department and about 15,000 by the City Department of Health, the latter group being parish school children.

Newark is one of the pioneer cities in undertaking to immunize its children against diphtheria. Dr. Fuerstman would like this city to adopt the New York slogan—"No diphtheria after 1930". He is enthusiastic over the work of the late Dr. Abraham Zingher of that city, whose recent death by asphyxiation in his laboratory put an end to his personal work in preventive measures in public health—a field in which he was acknowledged leader. Before his death Dr. Zingher had practically perfected the method of using the Schick test and the follow-up treatment and had inspired many others to carry on the work.

It is in the realm of the preschool child that Dr. Fuerstman sees the greatest need at present, and it is for that reason he wishes the family physician would enter the campaign. The little tot is more susceptible to diphtheria than the youngster of school age, every year adding to the possible development of immunity on the part of the child, Dr. Fuerstman points out, and therefore the little child is most in need of protection.

When Cleveland School and Alexander Street School have been tested every school in the city system will have been visited in the interest of prevention of this specific disease. It is an admitted fact, Dr. Fuerstman declared, that the children in crowded sections of the city show a greater natural immunity than those in less built-up sections. Susceptibility varies more or less according to race, it has been observed, the colored being more susceptible than others to this disease.

Some of the later Schick tests made in the schools indicate the variations. At Ann Street, where 955 children were tested, only 37.6 gave a positive reaction, while at Elizabeth Avenue, where 175 were tested, 74.2% were positive. Others in this group were: Peshine Avenue, 330 tested, gave a percentage of 61.2 reacting positively; Maple Avenue, 400 tested, 68.7 positive; Madison Avenue, 502 tested, 52.7 positive. This gives a general average for the five schools of 58.8% of the pupils who were in danger of contracting diphtheria.

A simply phrased circular is used by the medical inspection department for distribution among parents, asking: "Is your child safe from diphtheria?" and telling of the Schick test and immunization treatment.

"We can determine those that are safe and those that need the vaccine by a simple test, the circular states.

"This test is free from all danger and will not make your child sick. It requires the injection into the skin of a drop of a test liquid.

"If the test shows that your child is safe, nothing further need be done. If it shows that the child may catch the disease, three injections of vaccine given at weekly intervals will almost surely give a life-long protection."

A blank is attached for the parent to fill out, giving consent to the test and immunizing treatment. At present no child is given either without the parent's consent, though Dr. Fuerstman and many others hope to see the test and treatment made compulsory.

## Communication

### A VISIT TO VICTORIA GENERAL HOSPITAL, HALIFAX, NOVA SCOTIA

(Letter from John Hammond Bradshaw, M. D., F.A.C.S., Orange, N. J.)

The English for over 3 centuries have possessed Halifax; although Newfoundland claims to be England's oldest possession, as John Cabot sailed the coast in 1497. Nova Scotia is an easy second. In the early days it was a battleground between the French and the English, and the beautiful "Evangeline country", about 60 miles from Halifax, we know from poem and story at times changed from French to English settlement. This fair country, although so far north that darkness in early summer does not descend at night until about 10 o'clock, has a good climate. The summers are not often punctuated by hot days when the mercury climbs to 90°, and the winters seldom experience a frost lower than 8° below zero. The air is crisp and cool and is without the wilting humidity that depresses the soul of the millions in New York in summer. Moreover, Halifax has a wonderful harbor, without sand bars or narrows, and ships the size of the Aquitania and Olympic drawing 40 feet plus of water easily maneuver and tie up to her very docks. A dredger has never been seen in her waters, as the bottom of the harbor is rock and the shores are precipitous and the water very deep close to the land. As Halifax is a thousand miles nearer London than is New York, it seems natural that the English should stop there.

Among her many hospitals supplying an urban population of 40,000, we find standing out in preëminence the Victoria General. It is a pleasure to see a hospital with such a setting. Owning a plot of ground 15 acres in extent, the buildings are over 1000 feet from the front gate, affording a pleasing park with grass, trees, and shrubbery half hiding a wide facade of brick and granite structure.

On December 6, 1916, occurred in Halifax Harbor a fearful calamity at exactly 5 minutes after 9 in the morning. The French freighter Montblanc having brought from the States 40 tons of T. N. T. for the Allies, passed from the front to the inner harbor to await her convoy to take the precious freight to the Allies in the Great War at a time when 40 tons of T. N. T. meant the possible destruction of over 40,000 Germans.

In some manner never explained, by a mistake of signals, this ship loaded with so much potential destruction was rammed by the Norwegian freighter Imo. The collision caused an obstinate fire on the Montblanc which, when the crew found they could not extinguish it, led them in terror to abandon the ship by small boats and escape. In about 20 minutes "something happened". Probably in all the history of the world so much high explosive force had never been released in one spot and at one time. An eye witness, a captain of a ship in the harbor, a mile away, told me he was knocked off his feet, senseless, and when he came to, he found deeply imbedded in the deck of his ship a flying piece of iron from the anchor of one of the unlucky vessels; 90 little school children who had run to the windows of their school-rooms at the first smaller explosion were blinded for life by the hurtling glass which was often driven out of sight in the opposite walls of the room; Halifax itself was practically wiped off the map. I believe there was but one house

left standing that did not have shattered glass. I saw a piece of iron deck plate a foot square that was hurled into the General Hospital 3 miles away.

It is impossible for one who has not witnessed such a calamity to realize the strain such an event puts on a hospital of but 300 beds. For although 1682 persons had been killed, many thousands had been wounded and the casualties were similar to that of a great battle. Churches, schools, theatres, concert and dance halls—even fish sheds—were filled with the dying and the dead. To add to the distress, a blizzard with snow and sleet struck the devastated town the next day. As all the windows and doors of the entire city had been blown in, the suffering was acute.

The Victoria General Hospital now stood up to this test. How many hospitals stand ready to meet such a disaster? This event occurred in the hospital's sixty-first year of benefaction, and its service at this time alone warranted its existence.

Presenting my card to its Superintendent, Mr. W. W. Kenney, who has filled this position for almost 40 years, I was treated with every courtesy, taken through the institution and introduced to the surgeons on duty. J. G. MacDougall, M.D., C.M. (McGill), F.A.C.S., invited me to go at once into his operating room, where he had the usual morning list of operations. The appointments and the methods and the technic were modern and up-to-date. Ether is the usual anesthetic, but is sometimes preceded by a few whiffs of chloroform. They are beginning to use regional anesthesia and are pleased with it. Ethylene has not been used. There is plenty of work, as this is the chief hospital in the Maritime Provinces, and has about 5000 yearly admissions. They have kept an accurate account of their mortality for 60 years, which varies from 4 to 6%. Can other hospitals show a cleaner page? Remember this is a Government Hospital, and there is no selection of cases.

## In Lighter Vein

### Utopia

When sham from creation was banished,  
When everything meant what it said,  
When flim-flam and falsehood both vanished  
And Glorified Truth reigned instead—  
A man turned a faucet marked "hot"  
And steaming hot water he got!  
—A. L. L., Judge.

"Old man, I want to tell you how much I enjoyed your lecture last night—I certainly did."  
"Thanks, but I thought you had a date over at your girl's house."  
"I did—her parents went to hear you."

And now a judge out in Kansas rules that a husband needn't listen to his wife's conversation. It's simply remarkable how many unmarried men have places on the bench.—Marion Star.

The Herald says a Detroit dentist is suspected of having beaten his wife to death with an iron bar. No doubt he won her confidence by assuring her that it wouldn't hurt a bit.—El Paso Times.

## Current Events

### STATE-WIDE CONFERENCE ON THE ABOLITION OF DIPHTHERIA

Pursuant to an invitation issued by Governor A. Harry Moore, about 75 representatives from public welfare organizations of New Jersey met in the Assembly Chamber of the State House at Trenton to confer upon the best methods of procedure for elimination of diphtheria from this state.

The Conference was called to order at 2.40 p. m. by Mr. Frank J. Osborne, Health Officer of East Orange, New Jersey, Chairman of the Committee having the conference in charge.

In addition to members of the committee and representatives of the State Department of Health present, cards were signed by the following named persons who attended the conference:

Hon. D. H. Agans, Three Bridges, N. J., Master of the N. J. State Grange, Senator from Hunterdon County. W. Holt Apgar, Esq., First National Bank, Trenton, N. J., Representing N. J. State Bar Association. William A. Atkins, 7 N. Fourth Street, Camden, N. J., Representing Improved Order of Red Men. A. E. Boice, D.D.S., 202 Broad Street, Bank Building, Trenton, N. J., Representing N. J. State Dental Society. J. G. Buch, Hotel Windsor, Trenton, N. J., Representing N. J. State Elks Association. George S. Burgess, 786 Broad Street, Newark, N. J., Representing N. J. State Chamber of Commerce. Mrs. Arch W. Carswell, Washington Avenue, Basking Ridge, N. J., Representing Basking Ridge Parent-Teachers' Association. Miss Virginia M. Chetwood, 266 Main Street, Hackensack, N. J., Representing Bergen County Tuberculosis and Health Association. Charles V. Craster, M.D., Health Officer, Newark, N. J. Walter Cole, Deputy Grand Secretary, 201 Bert Avenue, Trenton, N. J., Representing Grand Lodge F. & A. M. of N. J. Dr. Walter P. Conaway, 1723 Pacific Avenue, Atlantic City, N. J., President N. J. Medical Society. Charles W. Crankshaw, D.D.S., M.D., The Prudential Insurance Company of America, Newark, N. J., Director, Prudential Infirmary Medical Advisor Disability and Sanatorium Work. Mrs. Louis T. deValliere, 720 Riverside Avenue, Trenton, N. J., President N. J. Congress of Parents and Teachers. Dr. Edwin F. Dusenbery, 2 Hanover Road, Florham Park, N. J., Chairman of Health Committee of N. J. Congress of Parents & Teachers. Henry Dusenbery, Florham Park, N. J. Henry B. Diverty, M.D., Woodbury, N. J., President of the N. J. State Medical Examining Board. Ernest D. Easton, 21 Walnut Street, Newark, N. J., Executive Secretary, New Jersey Tuberculosis League, Inc. Ida K. Faulkner, Bernardsville, N. J., Bernards Township School Nurse. Leo J. Lanning, Trenton, N. J., Representing N. J. Press Association. Robert Lawson, Hanover, N. J. A. S. Fell, M. D., Health Officer, Trenton, N. J., Representing Health Officers Association of New Jersey. Mrs. E. Garfield Gifford, 129 Third Avenue, Newark, N. J., Chairman, Public Welfare N. J. Federation of Women's Clubs. Thomas M. Glasgow, M. D., 120 Passaic Avenue, Passaic, N. J., Representing the Kiwanis Club. Benjamin F. Havens, Senior Grand Warden, Grand Lodge, F. & A. M., Trenton, N. J. Miss Mary L. Johnston, 21 S. Westfield Avenue, Trenton, N. J., President N. J. Federation Business



& Professional Women's Club. Henry Kaufmann, Township of Scotch Plains, N. J., Member Board of Education, Member Township Committee, Member Board of Health. Mrs. Ward Dix Kerlin, 200 E. Central Avenue, Moorestown, N. J., Representing N. J. League of Women Voters, Chairman, Committee of Child-Welfare. Dr. John H. Logan, State Commissioner of Public Instruction, Trenton, N. J. John P. C. McCay, 400 Woodland Street, Trenton, N. J., Representing Independent Order of Red Men. John J. McHugh, Secretary, Association of Chosen Freeholders of N. J., Court House, Jersey City, N. J. Dr. J. Meigh, Bernardsville, N. J., Medical Inspector of Schools of Bernards Township, Member of Township Board of Health. Anna L. Meigh, Bernardsville, N. J. J. B. Morrison, M. D., 66 Milford Avenue, Newark, N. J., Recording Secretary of the Medical Society of New Jersey. Joseph R. Morrow, M. D., Ridgewood, N. J., Superintendent Bergen County Hospital for Communicable Diseases. Anne E. Rece, R. N., Muhlenberg Hospital, Plainfield, N. J., President, N. J. State Nurses' Association. Henry O. Reik, M. D., Executive Secretary Medical Society of New Jersey. Hugh V. Reilly, 41 Franklin Street, Newark, N. J., Representing N. J. State Federation of Labor. George R. Seikel, M. D., 47 Oak Lane, Trenton, N. J., Director of Physical Training & Hygiene, State Department of Education. Miss Charlotte L. Singer, 60 Olcott Avenue, Bernardsville, N. J., President, Women's Social Union. Thomas E. Smith, V. S., 309 Barrow Street, Jersey City, N. J., Representing Veterinary Medical Association of New Jersey. William N. Stewart, 20 & 22 E. State Street, Trenton, N. J., Representing Trenton Rotary Club. David F. Weeks, M.D., Skillman, N. J., Representing N. J. Kiwanis, Trenton Kiwanis, and Department of Institutions and Agencies. Dr. and Mrs. Louis Weiss, Newark, N. J. Mrs. Cornelia B. Meytrott, Department Institutions and Agencies, Trenton, N. J., Representing N. J. Conference of Social Work. Dr. Miles D. Wagner, 502 Broad Street Bldg., Trenton, N. J., Representing N. J. State Dental Society. Mrs. Horace Woodward, 22 Lowell Avenue, West Orange, N. J., Chairman of Education of the New Jersey League of Women Voters.

The Chairman briefly outlined the purpose of the conference and stated that he would call on several persons to address the meeting and would also ask representatives of various associations to tell what their organizations would do to help in the campaign. He then introduced Hon. A. Harry Moore, Governor of New Jersey.

The Governor stated that he was very much interested in the subject, as anything to do with the children of the state was of great interest to him. He stated that the boys and girls of New Jersey are its most valuable asset and expressed his appreciation at the response to the invitations sent out to attend this meeting. He said, "We are not gathered together because diphtheria is a particular menace in New Jersey at the present time, but because it can be stamped out, and we want to do it". He stated that according to the 1920 census of New Jersey, of the 1,000,000 children in the state at that time, 952,890 were under 15 years of age, and in this group 87.5% of diphtheria cases and 96% of diphtheria deaths occurred. Because of preventive measures taken, the number of cases and deaths is decreasing, but from 1921 to 1926 inclusive an average of 4681 cases and 439 deaths from diphtheria occurred in the state among children under 15 years of age, and it is our desire to eliminate

these 400 and more deaths each year. The Governor read extracts from 2 pathetic letters received by him, since the conference was called, from mothers who have lost children from diphtheria because of failure to immunize said children against the disease. He stated it is our purpose to make it possible for physicians to obtain the antitoxin at small cost at all times. He thanked those present for responding to the call to attend the meeting, and stated that diphtheria can be stamped out and it must be done.

Dr. H. B. Costill, State Director of Health, paid a tribute to the Governor for his sincere interest in the welfare of the children of the state, and stated that as yellow fever, cholera, and other diseases have been wiped out, so diphtheria can be eliminated. He cited examples of this as occurring in Auburn, New York, and other places. He urged that mothers of the state should have their children immunized by the family physician during the second six months of the child's life, as a majority of cases occur during this period. He submitted the following suggestions as diphtheria prevention measures which should be adopted and put into effect throughout the state:

(1) That the individual or individuals, be they parents or otherwise, are responsible for the occurrence of diphtheria because they have at their command (free of cost when necessary) an effective measure for the prevention of the disease.

(2) We should urge the mothers of our state to have their children immunized by the family physician during the second six months of life.

We should offer free immunization to the less well-to-do at all our infant welfare stations, and public health nurses should visit every mother to see that children are immunized either at public or private expense before they are a year old.

(4) We should offer free immunization again to those children who have not already been immunized, when they are brought to the preschool or admission clinics. Here again the attending nurses should urge immunization, preferably by the family physician or at the preschool clinics.

(5) And finally, we should urge—nay, we should insist—that all school children be immunized during the first year in school.

Dr. John H. Logan, State Commissioner of Education, stated that he felt somewhat out of place in this meeting and campaign. He said, however, that while he could not cooperate in every work brought to his attention, as Commissioner of Education, he would be glad to cooperate in this campaign and use whatever influence he might have with local Boards of Education in pushing the campaign in the schools. He stated that if the committee would suggest to him what literature they would like to have sent out through the schools, he would endeavor to see that it was done, and would transmit any message desired through his County Superintendents, Boards of Education, helping teachers, and others. He stated that he placed himself and his Department at the disposition of the committee, and would be very glad to help.

Dr. Henry O. Reik, Executive Secretary of the New Jersey State Medical Society, stated that the idea of calling this conference was to interest as many organizations as possible, and to get the representatives together in order to determine what might be done to wipe out diphtheria. He referred to recent campaigns in New York and

Pennsylvania, and stated that they have adopted the slogan "No More Diphtheria by 1930". He referred to the success of the campaign in Auburn, Syracuse, and other places in New York, as well as in Pennsylvania, and stated that what had been done in those states could be done in New Jersey. He called attention to the fact that the means of eliminating diphtheria by immunization is well known. He said physicians cannot go out and demand that the public shall be vaccinated against the disease, but they can say, "Here is the means to protect your child. Are you sufficiently interested to take action?" He said if there are any organizations which have been overlooked in the invitation sent out to attend the conference, he hoped they would consider their organization invited and join later in the work. He referred to the campaign carried on in New York by the use of posters, cards used for display in the offices of doctors and circulars on diphtheria gotten out by the State Tuberculosis Society. He said in some cities the girl scouts made a census by visiting each house and learning the number of children, and their ages, living in each place. This was followed up by sending information to the mothers of the children. He presented a chart showing that the incidence of diphtheria in New York State where the campaign has been carried on for 2 years was much less last year than it was in New Jersey. He said if this campaign is carried out he believed we could in a short time, abolish diphtheria in New Jersey.

The Chairman then asked that representatives of organizations tell within 2 or 3 minutes' time what their organization would do to help in the campaign, and he called on a number of the organizations to have their representatives speak.

Mr. Ernest D. Easton, Executive Secretary of the New Jersey Tuberculosis League, Inc., stated that the League has been interested in the prevention of diphtheria, but they were not prepared to do much more than to promote the campaign in an educational way. He said the particular thing the league is interested in is some form of literature to distribute, some poster, such as that used in New York, which may be shown. He said he did not think the poster should be used until we were in the midst of the campaign, but the use of such a poster on bill boards of the state at that time, he thought, would help. He said his organization stood ready to distribute literature, give lectures, show motion pictures and put up posters. He said they would probably be limited to work on the educational side.

The Chairman called attention to the work which has been done in East Orange since 1923 in immunizing children, and stated that they believe they now have about 80% of the school children immunized.

Dr. Charles V. Craster, Health Officer of Newark, stated his city had not done as well as East Orange, but they had obtained fairly good results in Newark, and have Schick tested and immunized about 50% of the school children. He said their greatest objection seems to have come from the father of the child, and that while the child and the mother are willing, the father often objects. He said the City of Newark will coöperate to the best of its ability in any suggestions which may be made at the conference.

Dr. David F. Weeks, Medical Director of the New Jersey State Village for Epileptics, Skillman, referred to outbreaks of diphtheria which occurred at the Village in 1909, 1910, 1914 and, 1915. He said with the hearty coöperation of Mr.

D. C. Bowen, of the State Department of Health, the work of immunizing the patients was undertaken, and since this work was completed 11 years ago, they had never had a case of diphtheria in the institution. He said they knew they had some carriers, but they had had no cases because the patients were immunized. He and Mr. Bowen had gone out to nearby schools, and where they were able to persuade families to have their children immunized, cases of diphtheria among these children had been eliminated. He believed a great deal of credit was due Mr. Bowen for the work which had been accomplished in this direction in the state. He felt this conference today was a step forward, and while he was not authorized to make a pledge for the Kiwanis Club, he thought he was safe in saying that that organization would do anything possible to help. He said the Commissioner of the Department of Institutions and Agencies was unable to be present, but had authorized him to say that his Department would coöperate to the fullest extent in carrying on this great movement.

Dr. A. S. Fell, of Trenton, representing the Health Officers' Association of New Jersey, said there is no doubt but what every member of the Association will be back of this movement. Dr. Fell referred to the work in Trenton, stating that the immunization in the public schools had been unavoidably interrupted, but they are going to take up the work with the beginning of the new school year. He said the work has been completed in 14 of the 15 parochial schools in the city, and that about 38% of consents were secured in these schools.

Mr. Geo. S. Burgess, representing the New Jersey State Chamber of Commerce, felt that he knew very little about the subject and could not state just what they could do to help. He said the State Chamber of Commerce is interested in anything that pertains to the welfare of New Jersey, and the basis of said welfare is public health. He said they have at present 12 different state-wide projects, which they are endeavoring to further, and they do not feel like taking up another unless they can be sure that there is something they can do. They would be glad to receive suggestions as to how they might help.

Mrs. L. T. deValliere and Dr. Edwina Dusenbery, representing the State Parent-Teachers' Association, stated that they have over 5000 members with organizations in every county of the state, and expressed the view that the question is largely a matter of education. It was suggested by one of the ladies that a request for information, together with some suggestive material on the subject, might be sent out with each copy of birth certificate given to parents.

Mr. J. G. Buch, representing the New Jersey State Elks' Association, said he was not in a position at this time to state just what his organization could do. He was greatly impressed with the subject and felt that their organization would coöperate in any way possible.

Mrs. Horace Woodward, representing the New Jersey State League of Women Voters, said the League would be glad to help in any way possible. She referred to an experience which she had in having her own children immunized against diphtheria.

Mrs. M. C. Heine, representing the State Federation of Women's Clubs, said she was here as a visitor to take back any information possible, and that her organization would be very glad to coöperate.



A representative of the Grand Lodge F. & A. M. of N. J., stated that the Masons were entirely in sympathy with the diphtheria elimination program and will give it such support as the Grand Master of the Lodge shall determine.

Mr. Wm. A. Atkins, representing the Independent Order of Red Men, said they were not in a position to do anything at present, but he would be glad to listen and take back any ideas possible. He said they would be willing to do anything they could, but would not hold a meeting until next May.

Senator David A. Agans stated, that as Master of the New Jersey Grange, he represented about 30,000 farmers in N. J. He said they had units covering every county of the state except Hudson and Union, and that meetings of these units are held weekly as a rule. He said the whole family is admitted in the Grange, and they would be very glad to bring this matter to the attention of the parents of the children. He thought it would be a fine opportunity to educate the parents by having lectures given along suggestive lines as to the prevention of diphtheria. He said that he was personally heartily in favor of the movement, and would do everything possible to help carry it out, as he felt one child saved would be worth all the time, attention, and money we could give to the subject.

Miss Anne E. Rece, representing the New Jersey State Nurses' Association, stated that their association is willing to coöperate and do anything they can in the campaign.

Mr. Hugh V. Reilly, representing the New Jersey State Federation of Labor, said they were willing to coöperate in any way possible, but he could not say that they could be of any great help. He said he was not in a position to say that their doors would be thrown open to speakers. He said they had approximately 180,000 members in the state, that a program of this kind could not be put over in a day, but they were willing to coöperate as far as possible in putting the message over. He invited the Conference to provide a speaker on the subject for their next annual meeting, feeling that this would pave the way for work with their locals.

Dr. Charles W. Crankshaw, representing the Prudential Insurance Company, stated that the President of the Company, Mr. Duffield, is much interested in the campaign but he could not attend the meeting today and therefore had asked him to represent the company. Dr. Crankshaw said what we must have is education and more education. He said he would carry back a strong message to his company and the Committee would, no doubt, hear what the company is willing to do.

Mr. Leo Lanning, representing the New Jersey State Press Association, stated that his association would be very glad to coöperate in the matter of publicity in any way possible.

Mr. W. N. Stewart, representing the Rotary Club, said their club would be very glad to help, and a representative of the N. J. Conference of Social Welfare Workers also expressed the willingness of their organization to assist in any way possible.

Dr. J. B. Morrison, Secretary of the New Jersey State Medical Society, stated that the meeting had been a real inspiration, and to see 25 to 30 organizations of the state represented in response to invitations to attend the conference was very gratifying. He said if the program is to be successful, it will be dependent upon education, or-

ganization, and coöperation. He suggested using the word immunization instead of the word toxin-antitoxin, as there seems to be some objection to the latter term. He said the whole matter should be studied carefully and they should have an organization made up of representatives from the various organizations represented at the meeting today, and further, that there should be no overlapping of effort.

Mr. Easton then moved that this conference go on record as favoring the carrying on of this campaign for the elimination of diphtheria, and that the present committee be continued with power to increase its personnel and further, that all delegates to this meeting stand ready to assist in the work. This motion was carried.

The following resolutions offered by Dr. Reik were unanimously adopted:

**RESOLVED.** That it is the sense of this meeting that the subject of diphtheria prevention be put on the program of each organization here represented, and that at their next meeting, if necessary, a Chairman of a State Anti-Diphtheria Campaign Committee within each organization be appointed, with authority to suggest similar action on the part of local units, and to assist them by suggestions or otherwise with their local campaigns.

**RESOLVED.** That for the purpose of aiding speakers upon the subject of diphtheria prevention and as a means of assuring accuracy and some uniformity of the subject matter presented, the Chairman appoint a committee of five (5) to draw up a standard lecture or syllabus of such lecture.

**RESOLVED.** That, as an aid to physicians and others who may be connected with the organization and conduct of local clinics, the State Health Department prepare an outline setting forth the accepted methods of administering the Schick Test and the immunizing agent, together with such other correlative information as may be helpful in the conduct of such clinics; and that such suggestions also be made to private physicians as may stimulate and aid them in carrying this work forward among the preschool children of their clientele; and further, that the material when prepared be published in the Journal of the State Medical Society.

**RESOLVED.** That each person here present (or some other designated by his or her organization) pledge himself or herself to take such position and to carry out such duties in the interest of the Anti-Diphtheria Campaign as may be suggested by the Campaign Committee; and in this sense each assembled delegate is to be regarded as an Associate of that Committee and authorize the use of his or her name as such.

Dr. Craster moved that the Chairman of this meeting be authorized to appoint such subcommittees as may be deemed necessary. This motion was carried.

Dr. Craster further moved that the Conference extend a vote of appreciation to the Chairman for his services in conducting this meeting. This motion was also carried.

On motion of Dr. Reik, the conference then adjourned to meet again at the call of the Chairman of the Committee.

(Signed)

CHARLES J. MERRELL,  
Assistant Director,  
State Department of Health.

## Medical Book Reviews

(Royce Paddock, M.D., Department Director.)

OVERCOMING TUBERCULOSIS. AN ALMANAC OF RECOVERY. By Gerald Webb, M.D., and Charles T. Ryder, M.D., Inc. 1927. Price \$2.00.

(Reviewed by B. M. Harman, M.D., Essex Mountain Sanitarium, Verona.)

Physicians who are most prominent in the battle against tuberculosis have found that a handbook containing selected information on the cause, prevention and treatment of the disease is of great value for the early education of patients in the details of the necessary routine. Books of this type have been prepared by several physicians for the specific use of patients under their care; they are of value to any intelligent individual suffering from this disease.

The same type of book is offered to the public in this little manual. The concise presentation of all the necessary facts to be observed by the individual in a simple easy style makes delightful reading. The 80 pages give clear, easily understood information and sound advice, and provide a practical solution of many of the minor details of a patient's daily life which frequently are a basis for petty worries.

It cannot be said that there is anything new on the subject in this volume, and a professional reader may disagree with the authors on various details. However, such details should be left by the patient to his physician for solution and should in no way affect the value of the book to the individual.

In their chapter on "Sanatoria and Climate", however, the authors might have been more conservative. Climate has been overemphasized too often in the past, and the sociologic side of tuberculosis has too frequently been ignored. A public sanatorium is frequently the last resort of the individual who has been pauperized by seeking a climate whose benign influence will completely restore health in the relatively short period of 6 months or a year. There can be no question that great benefit may be derived from a dry, warm climate, where a maximum of sunshine may be secured, provided the *financial condition of the patient permits* this course. However, the patient who cannot afford the luxury of a particular climate need not despair. Rest, the principal factor in the treatment of tuberculosis, may be had in all climates. The period of recovery in tuberculosis is rarely short, and depends upon the virulence of the infection, the stage of the disease, and the resistance of the individual. Perhaps this is unnecessarily emphasized in the review, as the authors give only 2 of 80 pages to this subject, and admit that climate is not one of the essentials of treatment; but years of experience with "cure chasers" have caused me to feel very strongly on this subject.

The optimistic trend of this manual adds to its value. In conjunction with the text there are sufficient charts for recording temperature, pulse, and weight for a period of 2 years. This is a valuable addition, enabling the patient to keep a definite record of his condition for his own encouragement and for the information of the physician. Before placing this manual in the hands of a patient, the physician should be satisfied of

his patient's understanding and philosophical attitude toward the disease. In the case of the ignorant, a loss of a pound in weight or an evening elevation in temperature may be the cause of hysteria or depression.

I am sure that this manual is invaluable to Drs. Webb and Ryder in their work and is peculiarly fitted to the type of patient with whom they deal. In practicing his art the physician must consider the individual patient before he places in his hands this or any other manual on disease.

LIPPINCOTT'S POCKET FORMULARY: George E. Rehrberger, M.D., Philadelphia, J. B. Lippincott Co., 1927.

(Reviewed by William F. Costello, M.D., Dover.)

This publication is a condensed index of treatment for practically all diseases, in alphabetic order. The first section contains a compilation of prescriptions generally accepted as the routine treatment for given diseases, together with a short space devoted to prophylaxis. Due to its small size and the number of diseases covered, the space devoted to some of the more serious conditions has necessarily been curtailed. In the treatment of toxemia of pregnancy we cannot agree that the advice to produce diaphoresis is good, especially in the severe type.

The chapter containing the U. S. P. preparations and the nonofficial remedies is very convenient for desk reference, as is the compilation of normal weights according to age and size for children and adults. The chemical examination of urine, a list of incompatible drugs, notes on pulse and respiration frequency at various ages, with a table showing the vital capacity in health and in tuberculosis complete the work.

The author has crowded an immense amount of material in a small volume. As a ready reference it ought to find a place, but should not be used as a short cut to more extensive reading.

THE MODERN TREATMENT OF HEMORRHOIDS: J. F. Montague, M. D., Philadelphia and London, J. B. Lippincott Co., 1926.

(Reviewed by David A. Kraker, M.D., Newark.)

This book is an extensive discussion of hemorrhoids. The chapter on pathology shows nothing new. The subject of examination procedure demonstrates the use of the author's special instruments. A long discussion on etiology merely proves that nothing original has been demonstrated by the author. The chapters concerning treatment are comprehensive, and considerable time is spent discussing the injection treatment.

The book, as a whole, is a satisfactory resumé of the subject, without demonstrating any originality.

### Lost Masterpiece

First Joke Writer—"What's wrong? You look sad."

Second Joke Writer—"I just wrote a good mother-in-law joke."

"Didn't the editor like it?"

"I don't know. My mother-in-law saw it first."—College Humor.



## County Society Reports

### ATLANTIC COUNTY

#### Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary.

The stated monthly meeting of the General Staff of the Atlantic City Hospital was held Friday, August 19, 1927, the meeting being called to order at 8.30 p. m., by Dr. Samuel L. Salasin, vice-president; Dr. David B. Allman, acting secretary.

**Committee Reports:** Intern Committee, Dr. Homer I. Silvers reported normalcy in the present quota of resident physicians and spoke very highly as to the calibre of the men on duty. Committee on Radium; Dr. Walt P. Conaway reported the collection of \$775 toward the fund for the acquisition of radium, which money has been handed to the treasurer of the hospital. He further stated that more contributions were promised and urgently solicited the coöperation of the staff members. The staff unanimously suggested that Dr. Conaway coöperate with the Press in a drive for further aid and that this suggestion had the free consent of the Board of Governors. Program Committee: Dr. Clarence L. Andrews enumerated the mortalities in the hospital during the month of July with the accompanying necropsy reports. Committee on Staff Publications, Dr. Robert A. Kilduffe urged the members to send in reprints of articles that had been published.

A letter was read from the American College of Surgeons, which was addressed to Miss Nellie McGurran, superintendent. Embodied in this letter were highly laudable expressions relating to the conditions and activities of the various hospital departments and to various other activities relating to staff organization, filing of case records, therapeutic and nursing services. The scientific program consisted of: Report of Gynecologic Service, by Drs. William Edgar Darnall and Edward Uzzell; Case Report, by Dr. Alfred Whitehouse; and Report of Surgical Service, by Drs. Homer I. Silvers and James H. Mason.

Dr. William Edgar Darnall, Chief of Gynecology, reported his service extending over a period of 3 months. Following his statistical report comprising the number of operations, the nomenclature of cases and the operative procedures, he presented a case report of Congenital Absence of the Vagina. This evidently was a true case of absence of the vagina and not the type of case often reported, in which, upon careful dissection, some fibromuscular tissue may be found between the rectum and bladder. Dr. Darnall stated that the vagina is the result of canalization and fusion of the lower ends of the ducts of Muller and as a result of faulty fusion and canalization certain anomalies in development are met with, notably absence, atresia and septate vaginae. Usually the vagina is found absent only among monstrosities, and atresias are sometimes found and may exist in all gradations from a complete fibromuscular cord to a membranous rectum, and is of little significance during the early years of life. No trace of a vagina may be found in teratologic conditions such as symphodia. In otherwise well formed individuals complete absence of the vagina does not exist. Schubert reports a series of 17 cases in which he constructed an artificial vagina from the rectum. In 3 of these cases the uterus functioned in a normal

manner. One of the patients mentioned in this article became pregnant and had 2 subsequent normal deliveries (Vaginal Plastics, G. Schubert).

Dr. Edward F. Uzzell, Associate in Gynecology, presented a case of fibroma of the mesentery, which case will be reported in full in a forthcoming issue of The Journal.

Dr. Alfred Whitehouse, resident physician, presented the following case of Primary Carcinoma of the Vulva. P. H., age 50, white, a housewife. Family history: Negative so far as the present condition is concerned. Past history: Measles the only disease of childhood. Pneumonia in 1918 and 1926. Has had no other illnesses. Menstruation began at the age of 14, was regular of the 28 day type. Periods lasted three days and the flow was moderate. Has never had any dysmenorrhea. Periods have been very irregular for over a year. Patient was married at the age of 29 and again at 41 and has been widowed a year. She has had 2 children, 1908 and 1923, and both were normal deliveries. She gave a history of 9 miscarriages during a period of 15 years. All were previous to the fourth month and she states none were self induced. There is a history of a leucorrheal discharge shortly after her marriage which lasted for 6 months and was treated by a physician.

In November, 1926, the patient was admitted to this hospital and the left Bartholin gland was excised for abscess. The laboratory report of the removed tissue at that time characterized it as "the usual picture of sub-acute inflammatory reaction." The Wassermann reaction was negative on this admission. From the time of discharge from the hospital, November 20, 1926, until the present admission, July 26, 1927, this patient has had a discharge and bleeding from the vagina and some swelling on the left side. These constituted her complaints on the last admission. No pain was experienced at any time. On examination she showed some degree of emaciation. The heart and lungs were normal and there was no demonstrable abdominal pathology. Vaginal examination showed a hard indurated mass which extended posteriorly from the left labium involving the posterior vaginal wall to a point a little to the right of the mid-line. The mass was irregular and somewhat nodular and on the posterior vaginal wall where it was adherent to the rectum there was an area of ulceration. The cervix was hard and had a scar of a slight laceration but was otherwise normal. The Wassermann reaction was negative and other laboratory findings normal. The diagnosis made after examination was carcinoma of the vulva originating in the previously excised Bartholin abscess. The patient was operated upon July 30 and the mass excised by the cautery. The wound was packed lightly in order to keep the surfaces separated and allow it to granulate from the bottom. The patient was given 2 x-ray treatments before discharge and advised to return for others.

The pathologic examination of the tissue removed showed a friable, fungoid mass, the microscopic picture of which was that of a squamous cell epithelioma. The microscopic examination definitely rules out the possibility of the growth having originated in the previous Bartholin abscess but it is an interesting question, nevertheless, as to the part played by the irritation of the abscess in the subsequent production of the growth.

It might be interesting to note, in connection with this case, a report of 29,000 gynecologic ad-

missions to the Johns Hopkins Hospital in 1923, in which there were but 19 cases of primary carcinoma of the vulva. Of these but 1 originated in Bartholin's gland and 1 was primary in the labium minus.

Dr. Homer I. Silvers, chief of surgical service, reported his service for May, June and July, 1927, his service comprising 188 cases which were presented in a complete statistical report.

Dr. Silvers recounted the mortalities in this series of cases, which deaths totaled 13, 6 of them being in a moribund condition on admission, dying within 24 hours after admission; 13 deaths comprised a mortality percentage of approximately 7%, and excluding 6 moribund cases which died within 24 hours after admission, the mortality rate totaled but 5½%. Dr. Silvers detailed the mortalities in a concise manner as follows:

No. 2264, M. S., male, age 50, admitted to the house, May 30, 1927, with a diagnosis of shock from fractured skull, continued in a state of extreme shock and died in 24 hours. Complete diagnosis: Fracture at base of skull-fracture anatomical neck of humerus-fracture right clavicle, crushed and comminuted pelvis, ruptured bladder. No operation.

No. 3232, J. M. female, age 4½ years, admitted to the house July 23, 1927, with a diagnosis of fractured skull. She was bleeding freely from mouth and nose, cold and clammy skin, totally unconscious, died within one-half hour.

No. 2027, W. S., female, age 20, admitted to the house May 14, 1927. She had an inflamed umbilicus which exuded pus. A sinus led from the umbilicus through belly wall for a distance of 2½ inches. On May 26, 1927, she was operated upon to remove a patent urachus, returned to be in good shape after short time, one-half hour under anesthetic. That night suddenly complained of nausea, temperature rose to 101, pulse 140. Respirations 28, complained of pain in chest. At 8 a. m. temperature was 101, pulse 80. At 2 p. m. became cyanotic-temperature 99.2, pulse 162.8 soft. At 6 p. m. pulse rapidly became of poorer quality and soon could not be counted nor palpated, died promptly with what the resident thought was acute heart failure.

No. 2643, W. D., male, age 52, admitted to the house June 21, 1927, with a history of no bowel movement for 3 days and distended abdomen. He was operated upon shortly after his admission. Growth found in sigmoid, total occlusion of gut; was resected, condition rather poor. He became progressively worse and died on fourth day.

No. 3222, E. L., male, age 28, admitted to the house July 22, 1927, with burns of arms, face, thorax, legs and feet. More than third of body surface burned. Died July 26, 1927.

No. 3116, G. K., male, age 32, admitted to the house July 17, 1927. Admitted to ward with compound, comminuted fractured skull, fracture upper portion right femur and minor lacerations. Patient was in extremely poor condition before decompression, after which there was distinct improvement which lasted for 2 days. His neck then became rigid. He had a positive Kernig, an abrupt rise in temperature. He died on the third day.

No. 2722, H. P., male, age 65, admitted to the house June 26, 1927, with strangulated femoral hernia and threatened delirium tremens. Operated upon shortly after admission. His reaction was noisy and restless, needed to be restrained.

His condition was never good and he died on the third day.

No. 2794, M. H., female, age 11, admitted to the house June 12, 1927, following auto accident with diagnosis of sub-dural hemorrhage. A double decompression was done, the first with anesthetic but for the second anesthesia was needed. Her condition after operation became steadily worse and she died within 12 hours.

No. 2439, N. M., female, age 1 year, admitted to the house June 9, 1927. The day before her admittance, she was in a "walker" which tipped over causing her to strike her head on the floor. She was picked up unconscious but soon regained partial consciousness, but was restless and irritable and had a very restless night. In the morning her father noticed a twitching of her right hand. On admittance she was dull, lying on her back, all limbs rather flaccid, stimulation of skin anywhere would provoke convulsions, her eyes were wide and staring, reacted poorly to light. Blood was found in spinal fluid. Parents refused operation for 2 days, at which time there were constant twitchings of all the muscles, with a weak thready pulse. Decompression showed an enormous subdural hemorrhage. Died the same afternoon.

No. 2252, C. E., male, age 53, admitted to the house May 29, 1927. Following motorcycle accident, he was admitted to the hospital in state of shock. He had fracture of 4th, 6th, 7th, 8th, 9th and 10th ribs, right side, anterior axillary line. Also the 8th, 9th and 10th ribs are fractured posteriorly. He is cyanotic, spitting blood, with emphysema and dullness in right side. The right leg shows a double fracture of the tibia and fracture of fibula. Compound fracture left tibia and fibula. He gradually grew weaker and died on the fourth day.

No. 2141, M. R., female, age 57, admitted to the house May 21, 1927, with intertrochanteric fracture left femur. Progressed badly from beginning. Developed hypostatic pneumonia and died June 14, 1927.

No. 2050, M. D., female, age 40, admitted to the house May 16, 1927. Patient was admitted with a history of having fallen 4 days previously after which began generalized abdominal pain. On admittance there was generalized abdominal pain with rigidity and tenderness most marked in right upper quadrant where there appears to be a mass involving the epigastric region. There is marked distension. Dullness is noted in left flank which shifts with change of position. Our impression was that of an acute surgical abdomen, suggesting a rupture of a viscus, with diffuse peritonitis and free fluid in her abdomen. Operation disclosed a diffuse septic peritonitis with great quantity of free pus, the origin of which was a perforated gangrenous appendix. The intestines were pushed into the upper portion of abdomen and firmly matted together. She died within 12 hours.

No. 2440, W. G., male, age 57, admitted to the house June 11, 1927, following auto accident. His injuries were: fractured left ulna-compound, fracture of right femur-compound, fracture of right femur, fracture of tibia and fibula of both legs, extreme shock from which he never reacted. He died in a few hours.

Note. Of these 13 deaths, 6 of them were in a desperate or moribund condition on admission and died within 24 hours after admission.

Dr. Silvers completed the report of his service



with the following case report. Patient, adult male, 39 years of age, admitted to the hospital on May 3, 1927, the chief complaint pain in the epigastrium referred to the back. Patient was of slender build and complained in the past 2 weeks of acute cramp-like pain in the epigastrium which radiated to the back, intermittent in character, lasting for approximately an hour. This pain has been so severe that patient was unable to stand erect. Appetite has been good until 2 days prior to admission and patient has lost 15 pounds in the 3 weeks prior to admission; tendency to constipation, but bowels move freely with the aid of laxatives. During the past 2 days patient has vomited frequently, the vomitus being greenish in color and very bitter to the taste; the urine has been cloudy and on micturition some pain was experienced; no difficulty in controlling urinary flow. In July, 1927, there has been a history of a similar attack and a provisional diagnosis of chronic cholecystitis was made at the time, the patient remaining in the hospital 3 days refusing further treatment. The roentgenographic examinations were devoid of any positive finding referable to the gall-bladder or kidneys. The urine disclosed nothing of importance. On May 6, the leukocytes were 16,500 with 66% polynuclears, 31 small lymphocytes, otherwise blood examination negative; smears and cultures taken at the time of cystoscopy were negative. On this day the general condition of the patient was good for operative procedure; on the 13th a laparotomy was performed. Many dense adhesions were found around the duodenum, liver and gall-bladder and an opening in the duodenum was excised which was about  $1\frac{1}{2}$  centimeters in diameter. The opening was then sutured. A posterior gastro-enterostomy was then performed. Final diagnosis: ruptured duodenal ulcer adherent to the gall-bladder. Following the operation, supportive treatment was instituted and the patient made an uneventful recovery, being discharged on June 1, by Dr. Silvers, and in good condition.

D. James H. Mason, associate in surgery, presented 3 cases of bilateral fracture of the pelvis. The pathology and the subsequent results of treatment were excellently portrayed by roentgenograms. These patients were treated on fracture beds and the pelvis immobilized. The average stay in the hospital was  $4\frac{1}{2}$  weeks.

### CAMDEN COUNTY

Grafton E. Day, M. D., Reporter.

The monthly meeting of the Camden County Medical Society was held at the Dispensary Building on Tuesday evening, September 13, with President Alfred Cramer, Jr., in the chair. The minutes of the last regular meeting were read as well as those of special meetings at which Resolutions of Respect were adopted for Drs. Daniel Strock, William A. Wescott and Paul I. Young.

The scientific program was one of unusual interest and was handled in a masterly manner by Dr. P. S. Pelouze, of Philadelphia. His subject was "Some Bladder Symptoms", and the interest of every one present was held closely as he presented his paper. Dr. A. H. Lippincott discussed the paper.

The business committee reported on the cost of improvements to the building. The meeting then adjourned.

### GLOUCESTER COUNTY

Henry B. Diverty, M. D., Reporter.

The Gloucester County Medical Society held its social session Thursday evening, September 15, entertaining the wives and sweethearts of the physicians at the Oak Valley Country Club. Music was furnished by a ladies' trio, and Miss Pierce gave several vocal selections which were greatly enjoyed.

The speakers of the evening were Professor Hobart A. Hare, of the Jefferson Medical College, Philadelphia, and Dr. Fitz George, District Superintendent of Camden District of the M. E. Church, and Dr. J. B. Morrison, Secretary of the State Medical Society of New Jersey. All of these men spoke on timely topics which were very much appreciated.

The dinner was served by the Oak Valley Country Club in their usual first-class manner. After spending a very pleasant social evening the members and guests adjourned at a late hour.

### NEW JERSEY STATE SANATORIUM

#### Twentieth Anniversary and Sixth Annual Reunion of Former Patients

On Saturday, September 17, a fine summer day, about 700 former patients and their friends, including physicians, nurses and social welfare workers, gathered at the New Jersey State Sanatorium for Tuberculous Diseases, Glen Gardner, for the celebration of the twentieth anniversary of the opening of the sanatorium and the sixth annual reunion of former patients. Patients now at the sanatorium acted as ushers and showed the visitors around the grounds and through the buildings which were decorated with autumn foliage and signs bearing the greeting "Welcome Old Timers". Auto busses met the trains and conducted the visitors to the sanatorium. At one o'clock a buffet luncheon was served.

In the afternoon everybody gathered in the recreation hall, where Dr. S. B. English, who has been medical superintendent of the sanatorium during its 20 years of existence, presided and introduced the speakers, Commissioner William J. Ellis, of the State Department of Institutions and Agencies; Dr. A. C. Morgan, of Philadelphia, President of the Pennsylvania State Medical Society and Professor of Applied Therapeutics at University of Pennsylvania School of Medicine; Dr. H. A. Pattison, Medical Director of the Potts Memorial Hospital of Livingston, N. Y., and Dr. Bowen, Medical Director of the New Jersey State Board of Health. Rev. Canon Samuel B. Wolles of Trenton pronounced the invocation. Dr. S. B. English called attention to the charts, prominently displayed, giving statistics of former patients. These showed that 60% of all former patients are either attending school or working and self-supporting. This indicated that an economic return is being made to the state of New Jersey for the money expended in maintaining the sanatorium.

At the close of the speaking, Commissioner Ellis presented to Dr. S. B. English, on behalf of the patients, staff and employes of the sanatorium, a beautiful white gold Hamilton watch, with chain and knife attached, and also a cake on which were 20 candles to commemorate the twentieth anniversary of Dr. English's regime. Dr. English

fittingly responded to the good will expression of his workers and charges.

Most of the visitors stayed until the evening train, but some remained over the week-end at surrounding farm houses.

Many groups of former patients from various town came to the reunion together, this being arranged by their local tuberculosis associations. To those interested in tuberculosis work and to the patients and former patients, it was a red-letter day.

## Miscellaneous Items

### A GOOD LOCATION FOR A PHYSICIAN

Word has been received from the district state health officer who has the town of Western, Oneida County, in his jurisdiction, that the only physician in that community has moved to Saranac Lake. This leaves not only Western but the surrounding towns of Ava, Lee, Steuben and Floyd without convenient medical service. As these towns cover a large territory he believes that an active physician would probably be able to develop a large practice. Further details can be obtained from Dr. H. J. Ball, district state health officer, 512 Plant Street, Utica, New York.

### THE INCUBATION PERIOD OF RABIES IN DOGS

It is generally known that the incubation period of rabies is extremely variable. Dogs that have been bitten by a rabid animal may develop symptoms in two weeks or even less, or, in exceptional cases, may not become rabid until from six months to a year. The incubation period varies according to the virulence and quantity of the virus introduced, and the location of the bite. Deposition of the virus in large nerve trunks or in tissues near the central nervous system, as in the case of bites about the head, tends to shorten the period. Since this period may be extremely long, any valuable animal which has been exposed to rabies should be held in quarantine for from six months to a year. With animals of no value this need not be a factor, since they can be destroyed. Owners of valuable animals will no doubt wish to take the precaution of having them immunized by the Pasteur treatment.—N. Y. Health News.

Alpha-Lobeline.—The Council on Pharmacy and Chemistry reports that under the name "Alpha-Lobelin", Ernst Bischoff Co., Inc., markets a solution of the hydrochloride of the alkaloid alphaslobeline. The product is marketed in ampules stated to contain, respectively, 1/16 grain and 1/20 grain of alpha-lobelin hydrochloride. The product was submitted to the Council with the claim that its use was indicated in "asphyxiations, shocks and poisoning where there is central respiratory depression". The Council's report states that alpha-lobelin has been very extensively advertised with claims that are extravagant, often bordering on the sensational. The evidence as to the value and safety of the product is still so incomplete that the Council has been unable to reach a definite conclusion. The Council calls attention to a circular issued by the American distributors con-

taining a "Partial List of Hospitals using Alpha-Lobelin" and to a paper by Norris and Weiss. To learn something as to the experience of some of these hospitals with the drug, letters were written to twenty-seven of the more prominent of them. While the reports of some of these hospitals are favorable to the use of the drug (although it cannot be said that they are at all conclusive), it is evident that the circular containing this list of hospitals "where the drug is being used" gives an erroneous impression as to the extent of its use and of the results to be expected. The paper by Norris and Weiss and other papers which have been published contain no conclusive evidence regarding the usefulness of alpha-lobelin. Since adequate evidence for the therapeutic usefulness of alpha-lobelin is lacking at the present time, the Council has postponed definite action in regard to the eligibility of the drug for inclusion in New and Nonofficial Remedies. (Jour. A. M. A., August 27, 1927, p. 693.)

Hexol Not Acceptable for N.N.R.—The Council on Pharmacy and Chemistry reports that Hexol (formerly called Maxol) is manufactured by the Sanitary Supply Co. and is a pine oil soap solution stated to have the following composition: Pine oil, 65%; rosin soap, 10%; cocoanut oil soap, 10%; water, 15%. It belongs, therefore, in the class of pine oil disinfectants which were introduced some twenty years ago in the expectation that they would replace the cresol soap solutions such as Liquor Cresolis Compositus. The Council points out that the name of this unoriginal compound is not descriptive of the composition, and it also misleading in that it suggests the product to be an alcohol containing six carbon atoms. The Council reports on the lack of acceptable evidence for the claims that are made for the preparation and calls attention to a government bulletin giving notice to manufacturers of pine oil disinfectants in regard to the evidence which should be obtained before such products are recommended as general disinfectant. The Council found Hexol unacceptable for New and Nonofficial Remedies because it is an unoriginal mixture marketed under a nondescriptive, proprietary name, and because it is marketed under claims that are unwarranted in the light of available evidence. (Jour. A.M.A., August 27, 1927, p. 711.)

I know a church where the boys and girls were asked to vote, privately, for the person in town, whom they most admired. Eighty-five per cent of the votes went to a doctor, who was an elder in that church. Not the parents, not the preacher, but the doctor. I knew him and I did not marvel at the vote. He was healthy, loved a good horse, cultivated roses, fought the saloons, loved his patients, taught in the Sunday-school. He dressed well, spoke well, lived well. People admired him. He was the outstanding Christian of the town and county. When people look at you, are they drawn to your religion or repelled from your church? That is a serious question.

—John R. Ewers, The Christian Century.

"How about some nice horseradish?" said the grocer to the bride.

"Oh, no, indeed! We keep a car."



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## A SAFE AND EFFECTUAL ANESTHESIA FOR THYROIDECTOMIES

GEORGE P. PITKIN, M.D.,

Surgeon-in-Chief at the Holy Name Hospital,  
Teaneck, N. J.

(Read before the 161st Annual Meeting of the  
Medical Society of New Jersey, Atlantic  
City, June 11th, 1927)

There are two subjects I wish to offer for your consideration today; one, is the use of ephedrine combined with novocain in block anesthesia for thyroid work, which, so far as I know, has not been attempted heretofore; the second is to submit for your inspection a new self-filling, continuous-flow syringe; whereby the solution is introduced into the syringe through the piston and piston-stem, and the back flow is inhibited by a valve in the side of the piston-stem. This syringe permits the injection of large amounts of anesthetic solution in a comparatively short space of time, and eliminates the refilling and passing of syringes. It has the Luer locking device, so that the needle cannot "blow off" or leak at its connection with the syringe; neither can the piston push off the tip end of the syringe. It was designed primarily as a time saver and I trust you will receive it and approve its many merits.

Anesthesia in thyroid work has been the topic of much discussion during the last few years. Possibly, personal choice of a method of anesthesia has been adopted in many instances without due consideration of the pa-

tient. I believe all of our larger clinics have, after careful study, almost universally adopted some form of local or block anesthesia. If the primary and secondary mortality is carefully considered, it will be found that anesthesia in thyroid work may be considered of more importance than the operation itself. Accidents may occur with both, but the immediately fatal accidents will be due to the anesthesia rather than the operation.

These patients come to us in an extremely toxic condition. Their systems cannot, or should not, be over-burdened with the toxic ingredients of inhalation anesthesia. The heart is already over-worked with general narcosis. The organs of respiration are more or less burdened, oftentimes respiration is seriously impaired by pressure on or distortion of the trachea. Why impose a greater burden? Why further reduce the body resistance by overloading the blood and tissues with an excessive amount of carbon dioxide? Preparing for operation, the patient has undoubtedly been under treatment for some time in hope of stabilizing the metabolic rate, which has, with rest and medication, at least approached normal. Will it remain normal with inhalation anesthesia? Why encourage vomiting and dehydration for 2 or 3 days when this troublesome complication may be avoided? The caloric needs of the patient are now the greatest. Do not deprive this sick patient, even temporarily, of the necessities of life.

The unexpected once witnessed—a fatality on the table due to general narcosis—will

cause one to seek another and safer form of anesthesia in these cases. The causes of fatalities in thyroidectomies under inhalation anesthesia are many. I am not speaking of ether alone; gas and ethylene take their toll. Ethylene may be safer than ether or nitrous-oxide, but the patient can ill afford to be deprived of the increased amount of blood that

the anatomy, which may or may not be considered as a detriment.

Unfortunately, these patients, or at least the toxic group, cannot tolerate adrenalin. The administration of even very small amounts frequently produces alarming symptoms. The pulse will immediately jump to 200, 250 and sometimes becomes so rapid that counting it



Fig. 1. Raising the subcutaneous wheals.

is unavoidably lost with this form of anesthesia. Infiltration anesthesia is safe and effectual in many cases, but unfortunately it will not permit much traction or the delivery of substernal or subclavicular growths without pain, unless it is helped out with some form of inhalation anesthesia. It also produces edema of the tissues and distortion of

is almost impossible. There is a feeling of impending danger; respirations are short and panting; a sensation as though the head would burst open, and not infrequently 1 or 2 drops of adrenalin in such cases will produce convulsions of a serious nature.

The anesthetic properties of novocain alone cannot be relied upon for more than 15 to 20



minutes, which is frequently too short a time to perform the operation, but with the addition of 1 c.c. of a 3% solution of ephedrine to 200 c.c. of a 1% solution of novocain, anesthesia may be maintained satisfactorily for one hour. In innumerable cases I have found this not to vary 5 minutes one way or the other. In fact, my associates have sometimes

mediately following the operation. There is no vomiting or dehydration. The caloric intake need not be affected. The anesthesia is complete and effectual. It does not have to be helped out with inhalation or by reinjections. Severe or sudden traction on the trachea or rough or unkind sponging may cause coughing.

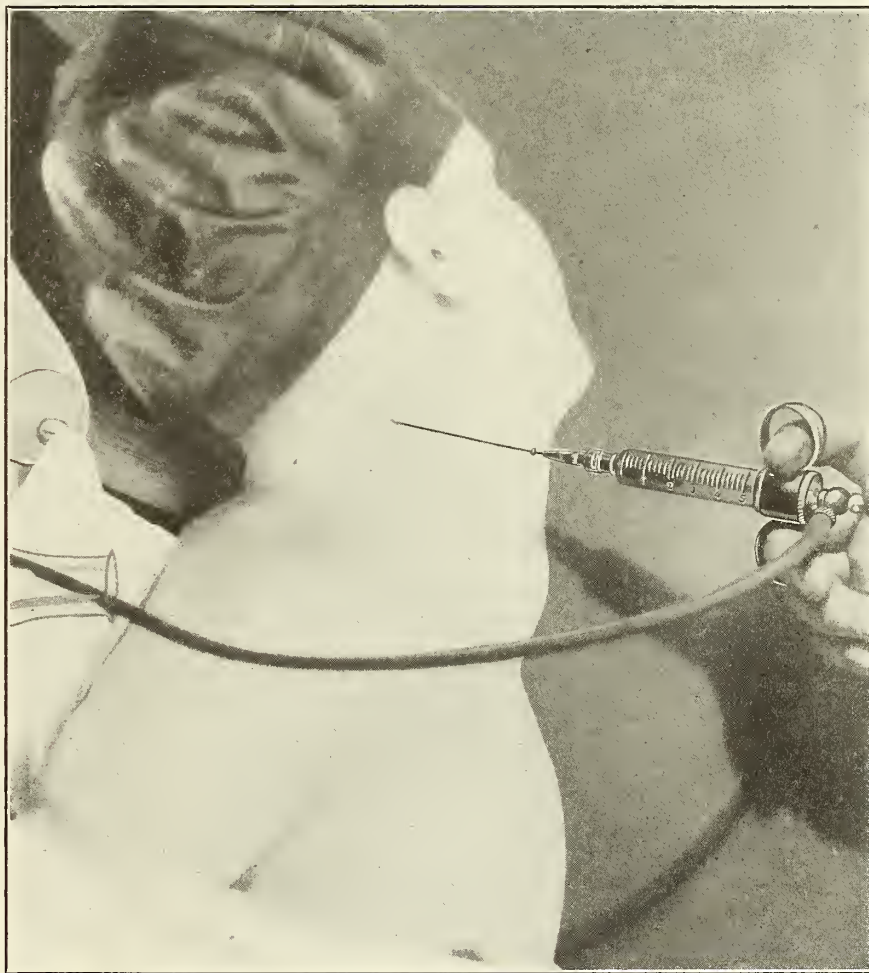


Fig. 2. Blocking the superficial cervical plexus. Note point of insertion of needle.

said that they are able to set their watches by the accuracy of its duration.

The method which I offer for your consideration does not produce any shock, does not stimulate the heart—in fact slows it—and does not impair respiration or affect metabolism. There is no change in the carbon dioxide content of the blood during or im-

The technic of administration is comparatively simple and easy to master. To overcome that nervousness from which the majority of these patients suffer, 0.016 gm. of morphin with 0.0003 gm. of scopolamin is administered one hour before the operation. Should the patient be extremely nervous, however, the above amount is given 3 hours

before and repeated again 1 hour before the operation. Morphin in large amounts is well borne by the toxic patients, and I believe it is of great assistance. We have been unable to determine any detrimental results when as much as a grain has been administered within 6 hours prior to operation. To 100 c.c. of a

time without change of color or loss of strength.

The field is prepared in the usual manner from the angle of the jaw down over the chest and well back to the sides of the neck. The patient is placed in position on the table, the head turned to one side, away from the oper-



Fig. 3. Blocking the fourth cervical nerve without withdrawing needle as inserted in Fig. 2.

1% solution of novocain, add 0.5 to 0.65 c.c. of a 3% solution of ephedrine. A great deal of time is saved in using the novocain and ephedrine from sterile ampules rather than the powdered novocain sterilized immediately before using. Ephedrine when mixed with a novocain solution does not deteriorate as does adrenalin. The solution may be kept for some

ator as shown in cut No. 1. The tip of the mastoid and the transverse process of the sixth cervical vertebra are palpated and an imaginary line drawn between these 2 points. One-half inch below the tip of the mastoid, and over the posterior border of the sternocleidomastoid muscle midway between the mastoid and clavicle, cutaneous wheals are



raised as shown in cut No. 1, using 1 to 2 c.c. of the solution above mentioned. These wheals are raised with a fine 25-gauge needle, which produces little, if any, pain. In the lower wheal, insert a needle  $2\frac{1}{2}$  or 3 in. long, preferably not larger than a 22-gauge, directly into the tissues and pointed toward the

down over the neck and chest wall, nearly to the nipple line. (See cut No. 9.) Without withdrawing the needle, continue its insertion at right angles to the axis of the neck inward until bony resistance is felt. At the fourth cervical vertebra, insert 8 to 10 c.c. of the solution; which anesthetizes the fourth cervi-



Fig. 4. Blocking the third cervical nerve without withdrawing needle as seen in Figs. 2 and 3. Note angle of insertion.

transverse processes of the vertebra as palpated at this point, deep enough to go below the posterior border of the sternocleidomastoid muscle, and there deposit 8 to 10 c.c. of the solution; as shown in cut No. 2. This anesthetizes the superficial cervical plexus and produces complete anesthesia of the skin and subcutaneous tissue from the angle of the jaw,

cal nerve as shown in cuts No. 3 and No. 8. Withdraw the point of the needle to the skin surface and reinsert it upward at an angle of about  $45^\circ$  to the axis of the neck until bony resistance is again encountered; at the third cervical vertebra, inject 10 c.c. of solution to anesthetize the third cervical nerve, as shown in cut No. 4. Withdraw the needle and rein-

sert it in the wheal made below the tip of the mastoid, at right angles to the axis of the neck, to the transverse process of the vertebra, and again inject 8 to 10 c.c. of solution to block the second cervical nerve; see cuts No. 5 and No. 8. The same procedure is carried out on the opposite side of the neck, with the patient rotating the head in the opposite direction.

Should this accidentally happen, there is no harm done, provided the solution be not injected into the vein.

The technic for the use of the syringe is to attach a piece of rubber tubing of convenient length, usually about 18 in., to the side intake nipple of the plunger stem, immerse the distal end of the rubber tube in the anesthe-



Fig. 5. Blocking the second cervical nerve.

As soon as the injections are completed, the operation may be started. If only one lobe is to be removed, it is not necessary to block the deep cervical plexus on the opposite side of the neck. Care should be exercised that the needle does not enter the intercervical space of the spinal canal. There is little, if any, danger of puncturing the jugulars.

tic solution; the rubber tube is held in place by a specially devised heavy sinker supplied with the syringe. The needle is fastened on the tip of the syringe by a half turn to the right, which locks it in place, preventing leakage or the possibility of "blowing off". To fill the syringe, the plunger is withdrawn while the tip of the needle and the rubber tube are



immersed in the solution, in the same manner as you would fill an ordinary syringe. This will draw the air out of the rubber tube and about half fill the barrel of the syringe with solution. The syringe is now inverted, the needle pointing upward, and the plunger slowly pushed forward until all air is expelled. The barrel of the syringe should be half full

in a vein, and the needle should be withdrawn and inserted at a different angle. Needles of various sizes may be readily changed without permitting air to reënter the syringe after it is once in use.

The technic is relatively simple and should be readily mastered. Failures, or incomplete anesthesia, have never been experienced. The



Fig. 6. Showing branches of the superficial cervical plexus. Note relation of needle.

when the needle is introduced into the tissues and the solution can be injected by working the plunger up and down as you would a pump. Should a vein have been accidentally punctured, blood will appear in the barrel of the syringe through the needle when the plunger is withdrawn, warning the operator immediately that the tip of the needle is with-

patient suffers no pain at the time of administration of anesthetic nor during the operation. He is conscious, able to converse readily and to change his position slightly from time to time if uncomfortable.

It is advisable to have a nurse at the head of the table, one who is a good conversationalist, one who is so trained that she is able to

divert the patient's attention from the operation, who should at all times look out for the patient's wants. You may call her a psycho-anesthetist if you will. The ordinary operating room nurse has been found to be of little value. A trained psycho-anesthetist will do much to lift the worry or anxiety from your shoulders. She keeps you informed continu-

artery clamps, which they mistake for the clicking of scissors. This fear can be overcome by showing the patient an artery clamp some time before the operation in a casual manner, locking and unlocking it in her presence, and explaining what it is for. The assurance that the click is not caused by scissors greatly relieves anxiety.



Fig. 7. The deep cervical plexus. Needles in place to block the second, third and fourth cervical nerves. Observe angles of insertion.

ally of the patient's condition. She knows how and what to do to make the patient comfortable, and endeavors at all times to keep the patient mentally occupied and to cause her to forget time.

The only objection patients have to this form of procedure is the constant click of the

With this method of anesthesia one is at least certain that the patient is going to return to her bed. The detrimental effects of inhalation anesthesia will not be experienced. I do not claim this to be ideal, but I do believe it to be an improvement over infiltration, and a vast improvement over inhalation an-



esthesia; I am offering it with the thought that it may be beneficial both to the patient and the surgeon.

The automatic syringe shown in the various cuts was devised by the author to facilitate this and other forms of local or block

or over the back of the hand. It is never in the way.

To attempt to relate the numerous advantages of this form of anesthesia or the smooth



Fig. 8. Illustrating the distribution of the cutaneous branches of the superficial plexus. Note point of insertion of needle.



Fig. 9. The shaded portion represents the anesthetized field. Note sharp line of demarcation at the angle of the jaw.

anesthesia. It permits injection of large amounts of solution with a great saving of time. There is no leakage. The needle cannot "blow off" yet it can instantly be removed by a half-turn to the left. The solution is introduced into the syringe through the piston and piston stem. It will work in any position. The intake rubber may run through the palm

workability of the syringe would be folly. To demonstrate it here before you is quite impossible. Therefore, I am going to do the next best thing and will endeavor to show you its method of technic and workability with motion pictures of operations performed with its use. (Dr. Pitkin concluded with a very interesting moving picture demonstration).

## THE INTERN'S LABORATORY SERVICE

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That every hospital must have resident physicians to enable it to function efficiently is self-evident, and that every physician should have a hospital service to enable him to commence the practice of medicine with a

background of intensified practical experience is no longer a matter of debate.

For the hospital, the intern is the means whereby a continuous medical service is assured to its inmates; and for the intern the hospital is the crucible whereby the abstract theory he has learned in school is crystallized into concrete methods of practice. Each is complementary to the other, therefore, and each is acutely interested in all the ramifications—expressed or implied—of their mutual agreement.

There are hospitals and hospitals—just as there are interns and interns and while, as in other things, what an intern “gets out” of his hospital service is very definitely influenced by what he “puts into” it, not a little of the responsibility for returning to him an adequate recompense in training and experience for the time and labor he expends in the hospital's service, depends upon the care and thought given to his problems by the hospital staff who select, adjust, and govern his activities.

Possibly one of the most difficult of the services to adjust to the satisfaction of all concerned is the period devoted to work in the laboratory. There is no question as to the necessity for such a service as can be readily demonstrated by the logical progression of admitted facts. The intern is to be trained, not to peddle pills but to practice honest, intelligent, scientific medicine.

Health and disease may be looked upon as opposite extremes of functional efficiency; health being regarded as a condition dependent upon perfect performance of function, and disease a condition characterized by disturbance or loss of function. Diagnosis, the first essential step in the management of disease, rests upon the determination, first, of the particular function or functions affected; second, of the degree of impairment; third, whenever possible, upon the detection of the responsible cause and its mechanism. If these premises be granted, then the place and function of the laboratory in the study of disease is paramount and not to be denied, and the importance of a laboratory service to the resident physician apparent.

As always in the course of the study of medicine—of which the hospital year is an integral part—time is at a premium. The laboratory service, of necessity is brief and its disposition to secure the utmost for the resident a matter of difficulty. Added to this is the further difficulty arising from the fact that but few newly-graduated physicians are inclined toward laboratory careers and so are more interested in the technic of operations they will not be called upon to perform in the first 10 or 15 years of their practice and in

the more dramatic features of practice. Their attention is focused upon the rare cases rather than upon those more common affections of the *hoi polloi* which, however, are apt to predominate in the early days of practice.

Be that as it may, and while it is true that the intern is not always of immediate value to an active laboratory, some effort should be made to see to it that his service in the laboratory should be of value to him and play its part in fitting him for future practice. To this end it is advisable for the pathologist and his new resident to have a short discussion at the commencement of the service in which the following suggestions may be elaborated to a greater or less degree.

The function of the laboratory and its methods is not to perform tests which shall be diagnostic. “Laboratory test” is an unfortunate phrase; laboratory *examinations* is greatly to be preferred as indicative of the rationale of the procedure. The application of a stethoscope to the chest is not a test for tuberculosis or pneumonia but a method of examining the lungs and so on and determining the degree to which their functions are efficiently performed. The significance of the findings is determined by the skill and acumen with which they are interpreted. The Widal agglutination test, likewise, is not a test for typhoid fever but an examination to determine the presence or absence of typhoid agglutinins in the blood. Its significance depends upon its interpretation in terms of the particular patient. One should think therefore of examinations rather than tests and emphasize the fact that there are practically no pathognomonic laboratory procedures and that all must be interpreted. If the physician is to properly examine his patient, therefore, he must utilize the laboratory to a degree dependent upon his own diagnostic acumen and the characteristics of the condition at hand, and whether he does his own laboratory work or has it done for him, unless he can interpret the results, he has accumulated simply a pile of reports of little value to either himself or the patient in whose interest he is, presumably, working.

The laboratory intern service should be fo-



cussed, therefore, upon the interpretation of the results. Allied to this and inseparable from the informative and intelligent clinical utilization of the laboratory, attention should be paid to the intelligent selection of the laboratory examinations to be made.

It must be remembered that in practice laboratory examinations must be paid for either by the physician who employs a technician in his office, or by the patient who is referred to the pathologist. The patient expects, and has a right to expect, that these procedures for which he has paid, are of necessary and essential importance in the recognition or management of his condition and would be sadly surprised—if not entirely disgusted—to learn half of them were of no conceivable value, furnished no information, and had no possible relation to or connection with his disease.

The resident physician should be taught as well as can be in the time at hand how to select, from the multiplicity of laboratory procedures available those which might or should prove of use in the case at hand. Not only does he benefit thereby but the laboratory also during the rest of his career by eliminating senseless examinations requested solely because the equipment is at hand or in the silent hope that some of them may furnish a diagnostic lead.

These should be the main objects of the resident's laboratory service.

What about technic? The resident should not come to the laboratory to learn laboratory technic. First, because it cannot be learned or taught in a month or two; second, because if his training has been thorough, he should be capable—with or without the aid of a manual—of doing those simpler methods suitable for office use. He should have practice, undoubtedly, in counting blood and in urinalysis, in examining sputum and smears for gonococci, but of the more complicated laboratory procedures he need know—by observation mostly—only sufficient of the technic to grasp the underlying principles so that later he may utilize their application to disease. It is of very little importance whether or not he can make a blood sugar or creatinin deter-

mination, but it is of a great deal of importance to be able to interpret their significance, and the same is true in no less degree of the complement fixation test and other serologic procedures applied to the study of syphilis.

It is useful to know how to count blood or examine spinal fluid, but it is still more valuable for the resident to decide wisely and correctly for or against operation or for or against the use of various therapeutic measures with the help of intelligently interpreted laboratory findings and still more useful to be able, in the puzzling case, to select the methods of laboratory approach which will really be of use.

One angle of technic must not be neglected—the proper collection of specimens for examination—for the success or failure, and sometimes, the significance of the laboratory examination is often directly influenced by the manner in which the specimen has been collected.

It is of practical value, also, for the physician to know how to do a venipuncture without making an operation out of it for the apprehensive or timorous patient or leaving a hematoma or a collection of punctate signposts of unsuccessful attempts. The resident, therefore, should have ample opportunity, under supervision and instruction, to practice in venipuncture and lumbar puncture, and, also, on other services, for the collection of biopsy material, and should learn the difference in the preparation of blood, for example, for culture, chemical analysis, or Wassermann, for these are things he will do later in his office.

How may all this be done? First, by having the purpose of the laboratory service emphasized at its inception. Then by suggesting, for example, that when he collects a blood count, that, by a hasty glance at the chart, an inquiry from the resident on service, or a question or two of the patient, he may learn something of the clinical situation. With or without this, when the blood count is done he should endeavor to form his own conclusions as to its interpretation. His attention and interest should always be focussed on, not, how is it done, but what does it mean now that it is done?

*Why*—should be his continual query and all the library, all the skill, all the patience, all the acumen of the pathologist should be given to him to enable him to find the answer.

## THE MODERN APPROACH TO DIGESTIVE DISEASES

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(Read at the 161st Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 10, 1927)

Modern medicine is undergoing an evolution which is slow but unquestionable. Its early history is punctuated with clean-cut pictures of disease entities, the logical separation of disease pictures and the minute study from every possible angle of the histologic, pathologic, physiologic and even chemical and bacteriologic aspects of disease. In focusing on a given condition, not infrequently the observer has lost sight of the whole and failed to note the essential characteristics of the tenant who inhabited the physical being. The result has been to direct attention to another phase of medicine; namely, the relationship of an individual to his environment, the effect of heredity, the comparison of every patient to a recognized normal type and most of all the recognition of abnormal function not always associated with recognizable cellular changes.

Frumason, in a recent work, points out that all organs are capable of functional reëducation; that as a rule the race is getting old too fast; that nearly everyone knows the rules of health and almost no one follows them; and that the tendency of the human species is to overdo in one direction or another. This tendency is accompanied by the inevitable penalty which nature imposes on every human being regardless of his position, great or small, rich or poor, brain worker or physical worker. It takes years of bad habits to produce a gastritis, an enteritis, a hepatitis or a colitis, and it takes a recognition of this fact to correct them. The public today realize that

pills and powders too often do not cure, but they are in a receptive mood to receive a program based on an intelligent attempt to undo what harm has been done, providing you can make it clear to them.

Perhaps the only group of organs over which we have actual control are those composing the digestive tract. The character of the material which enters the tract will largely determine the nature of digestive work. I frankly find not only profound ignorance regarding the method of study of different parts of the tract, but also in the rational application of simple truths to its treatment. Like every other group of organs in the body, the work of the digestive tract is subdivided into separate organs, each one of which has a specific function. It is this consideration which largely determines the behavior of the organ in disease. In this short communication I propose to cover some of the practical points which the general practitioner ought to know.

The mouth, as the first part of the digestive tract, is directly open to inspection. We have mechanical factors in the muscles, bones and teeth; chemical factors in the saliva; and, as Frumason points out, psychologic factors recognizing the taste of substances so as to present an effective defense if necessary to foods which are repulsive. By inspection we recognize gross lesions, but how many physicians insist upon studying the conformation and efficiency of the mouth from the standpoint of its first great function; namely, the gross mechanical comminution of food. Many forms of chronic indigestion are explained by poor dentition, improper or impossible approximation of teeth, and finally, the lack of teeth. The latter is an indication of old age and old age precedes death. Today the physician can not only study the mouth with a view to approximating function, but he can radiograph the teeth for concealed infection, and he, furthermore, can culture all suspicious areas. I could spend the entire period at my disposal considering mouth infection as a potent source of serious digestive trouble. This has been emphasized recently since we have produced experimental lesions in laboratory animals by means of cultures obtained from obviously in-



fectured teeth. In several recent experiments the laboratory picture strikingly resembled the clinical one, as Rosenow claimed some time ago.

The esophagus is the transit tube. Its business is the transferal of food from the mouth to the stomach. Jackson claims that another great function is the transferal of saliva. Practically all esophageal disease causes one symptom; namely, dysphagia. The general practitioner can take a careful history and surmise the cause. He can further use, harmlessly, in my opinion, the small stomach tube. If anything arrests the passage of this instrument into the stomach, its cause should be explained. While we have many conditions apart from foreign bodies and lye burns inducing esophageal disease either intrinsically, by affecting its walls, or externally, we have 2 precise methods that clear up the status of most esophageal disease; the first is the use of the x-rays, and the second is the method of esophagoscopy such as Jackson and his co-workers have evolved by the direct vision method. There is far less harm in the latter procedure than there is in the blind method of bouginage such as we were taught as students. I follow Jackson's lead in telling my students that as a diagnostic aid, the passage of sounds is absolutely a thing of the past—that the newer method of direct esophagoscopy, by direct vision, supplies all the information with little or no risk, in the hands of an expert.

The stomach is the first great point of arrest for food. It is a buffer for the rest of the tract, and its business is to reduce all food to chyme. One of the greatest lessons a physician must learn in disease is to estimate gastric tolerance. Almost limitless in health, it is sharply curtailed in disease. A careful history and physical examination will throw considerable light on the stomach condition. The nature of the symptoms, their sequence in relation to the digestive cycle, the finding of distention, a splash, diffuse tenderness, or the outline of a dilated stomach, is undoubtedly of value, but the general physician can do more than that. He can pass the small tube and directly ascertain what is going on and

how food is digested. The physician who does that will have no back talk from his patient. The possibilities of the use of the small stomach tube and its ease of application will only be apparent when it is tried a few times. The technic is simple; our nurses do this work routinely. Why guess whether there is retention, hypersecretion, swallowed mucopus, bile regurgitation, improper or prolonged or too rapid digestion, when the simple passage of the small tube offers you a ready means for rapidly answering a multitude of questions and requires no unusual skill. It is just as necessary to an understanding of the stomach as the stethoscope is to understanding of disease of the chest. It enables us to make a physiologic exploration of the stomach, and then we are in a position to demand as the final examination an x-ray study, which reveals exactly (in expert hands) the anatomy of the organ. The latter examination might well be left in the hands of an expert. The tube offers not only great diagnostic help, but is a most valuable therapeutic aid. With the information gleaned from the above, we can construct a plan of treatment directed to the underlying causes, but most particularly respecting the tolerance of the diseased organ. It takes years to produce chronic diseases of the digestive tract, and only a sensible plan carried out over a considerable period offers hope of a real result. My quarrel with most medical men is that they treat the acute phenomena symptomatically and fail to outline the plan.

The gall-bladder, as part of the great hepato-enteric system, has received more than its share of attention. We know several very important points regarding its habits and we have means at our disposal at the present day to more or less correctly evaluate its function. First, we know that the liver and bowel dominate it by determining the character of bile which shall enter its portals. Secondly, we know that it is rarely diseased alone—almost always liver and colon disease, and in about one-fourth of the cases, associated pancreatic disease. Furthermore, we know that the commonest abnormal conditions are inflammation and stone; the former varies all

the way from catarrh to gangrene, and the latter presents protean manifestations dependent on the number and position of the stones and the possible associated cholecystitis or cholangitis. Apart from the pros and cons of gall-bladder disease, the following is the order for the general practitioner:

(1) Realization that many of the subacute and acute symptoms that bear no definite relationship to the food cycle in the stomach are often due to gall-bladder disease. This is particularly true regarding flatulence, nausea, burning, upper abdominal pain.

(2) While the position of the gall-bladder varies markedly and may even be near the iliac crest or out near the axillary line, tenderness and muscle phenomena when localized to the gall-bladder area are suggestive of gall-bladder disease.

(3) The general practitioner has the small gastroduodenal tube and he should learn how to use it. The technic is easy and nothing impresses a patient more. The real danger is that this method in the hands of quacks with glib tongues can do irreparable harm. In the hands of the thoughtful physician, the microscopic, bacteriologic, and chemical study of the bile and duodenal contents offers a means of study not approximated by any other method, and as a means of therapy in selected cases is unexcelled. Its limitations are recognized, but so are its possibilities.

(4) The doctor who makes a practice of routinely studying the feces by gross and microscopic study will find increased fat as a suggestive point in many of the biliary conditions.

(5) The modern x-ray approach to gall-bladder disease has tremendously improved, including as it does, flat plates, a determination of deformity of surrounding organs, notably the stomach and duodenum, and finally, use of the method of so-called cholecystography; by which a dye is administered and segregated in the gall-bladder, the gall-bladder visualized, and finally its contractile power estimated by means of a fat meal. The percentage of correctness of this procedure proved on the operating table is so great as to justify its routine use in all cases of suspected gall-blad-

der disease. I know no modern hospital where the procedure is not used, and while much remains to be learned about interpretation, the fundamental principles have been laid down.

Liver disease is at once a broad and difficult field to the general practitioner. He sees every day functional liver disturbances whether he recognizes them or not, but medical teaching has been at fault in emphasizing the comparatively rare gross diseases of the liver when 95% of all liver complaints are functional and probably secondary to that great area of the digestive tract drained by the portal vein. Functional liver tests have been evolved; in fact, a whole series of them, the best of which are probably the dyestuff tests and the sugar tests. The liver can now be fairly accurately radiographed apart from physical examination, and many enlarged livers are encountered in this way that cannot be palpated. The general facies of the patient, the history suggestive of a general toxemia dependent on intestinal function, the finding of much fat in the feces, suggest liver disease and may call for detailed functional tests, blood serum studies or a study of the liver bile in the duodenum. Its multiple functions have suggested some sort of test for nearly all derangements of each function.

The pancreas has always suggested mystery to the general practitioner, and isolated as it is on the posterior body wall it is only indirectly accessible. The general practitioner has at his disposal the following methods of approach to pancreatic disease:

(1) History. The history of persistent pain unaffected by food or gastric remedies, particularly if progressive and associated with weight loss, is extremely suggestive of pancreatic disease. It is nearly always markedly refractory to dietetic and medicinal control. While the symptoms are localized in the epigastrium, they are not infrequently referred to the back.

(2) Physical examination may reveal a fixed tumor or mass on the posterior body wall, not movable with respiration.

(3) A study of the feces is always suggestive, revealing not only large movements and



undigested fats, but not infrequently the presence of undigested protein and carbohydrates as well. While many of these cases show a rapid intestinal transit, in the absence of the latter, undigested fats, proteins, and carbohydrates certainly suggest the possibility of pancreatic disease.

(4) Determination of the external pancreatic ferments by quantitative methods requires practice and skill, and even then is time consuming. Qualitative tests are inaccurate so that a better conclusion can be reached by the fecal picture than by duodenal study in so far as the general practitioner is concerned.

(5) The radiograph not infrequently affords indirect evidence of pancreatic disease by demonstration of pressure effects on the stomach and duodenum, altering the general topography of these organs. This is a point I insist upon in the study of any case of suspected pancreatic disease.

Small intestine disease: This twenty-three feet of the digestive tract is most important but poorly understood. The inflammations, parasitic infestations, deformities due to adhesions, intestinal obstruction, and finally, tuberculous enteritis, emphasize its importance. The rapid transit induced by inflammation of this portion of the tract induces diarrhea, and a microscopic examination of the bowel movements will not infrequently reveal the clue necessary to an understanding of the case. Roentgen ray examination helps us but a little and practically all the means of approach are in the hands of the practicing physician.

Of paramount interest to most practitioners is the colon. This is the great organ of elimination and it is the organ most frequently affected. Apart from its ability to absorb water and digest cellulose, the business of the colon is the formation and excretion of the feces. Its failure to do so constitutes disease, but the laity have all sorts of exaggerated notions regarding this function. It is, therefore, most important that the general practitioner be in a position to investigate the colon. He has at his disposal the following methods of approach:

(1) History. The size, form, frequency

and character of the bowel movements all directly suggest the nature of colon function. Incomplete, undigested, bloody movements with mucus around or apart from the movement, suggest colon disease.

(2) The colon is accessible to direct palpation in the ascending and descending portion in most persons. A routine attempt to outline the organ in this way will readily repay the effort. High colon retention, fecal impaction, spastic tender descending colon and sigmoid, are every day findings which immediately suggest the method of handling.

(3) Digital examination, which enables one to determine the status of the rectal ampulla, the possibility of fecal impaction (dyschesia), and the feel of the mucous membrane.

(4) Proctoscopy and sigmoidoscopy, which enable the practitioner to directly inspect the lower segment of the colon and which are now passed under direct control of the vision with little or no danger.

(5) Irrigation of the colon by revealing the nature and type of retention is often a diagnostic measure of considerable value.

(6) Study of the feces and particularly the external part of the bowel movement will throw considerable light on possible colon disease. The search for parasites, study of the character of the mucus, and bacteriology of the stool, may all be part of the investigation.

(7) X-ray study of the colon is done in 2 ways. The opaque material given by mouth is watched in its transit through the colon. This is really a study of colon physiology. On the other hand, by means of opaque enemas every inch of the colon can be visualized and any persistent defect noted. This is rather an anatomic study of the colon, revealing diseases which structurally alter the organ. In cancer of the large bowel, when beyond the reach of direct vision instruments, no method equals this in their demonstration.

In this rapid resumé I have only attempted to point out how the internist approaches these problems and in what way the general practitioner can secure results. With a thinking head, an analytical mind, a microscope, a stomach tube, and a proctoscope, it

is astonishing what good work can be done. I cannot lay too much stress on the possibilities which analysis of the stomach contents, bile and feces offer to the general practitioner. He has in these studies, if carefully performed, the key to many of the problems which beset him.

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### **FUNCTIONAL RESTORATION IN RE- PAIR OF FACIAL INJURIES— VALUE OF COLOR PHOTOGRAPHY IN THIS WORK**

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In all cases where operations of a plastic nature are contemplated it is a routine procedure to photograph the patient. Comparison of such photographs with others taken after the operation conveys an indication of the degree of correction that has been attained. In time, there is formed in this way a collection that may become useful in teaching, either by written articles or through lectures illustrated by lantern slides. Unfortunately, the photograph has its limitations. The photographer may fail to so pose the patient that the second photograph will have a correct relation to the first, thus failing to show convincingly what changes have been effected. Or, if a hard light is used in one instance and a soft light in the other, the information sought to be obtained from the comparison may not be dependable. Even if the photographer has avoided these errors, it is difficult to obtain a convincing picture from a single-tone plate which makes for flatness and the converging of planes. There is an absence of that "modelling" which enables one to sense the truth about the relation between the parts.

For purpose of demonstration by lantern, it was thought something might be gained by having an artist supply colors for the tissues, using the black and white photograph as background. Several examples can be shown in slides and for some of them it can be claimed

that for teaching purposes they are distinctly useful. An objection to the method undoubtedly exists, since the artist, in what the observer might consider important particulars, could not be trusted to reproduce conditions with such fidelity as to completely satisfy the critical professional mind.

Direct color photography, if it could be had, was the evident remedy to this situation. To be of practical value, such photography must be not merely possible but readily available, so there was nothing to but wait for the chemists to evolve a plate whose use would be within the competence of the skillful camera operator. In pictures of this sort that we have so far made there is evidence that this condition either is here or is close at hand. As yet, however, even the manufacturers do not claim perfection for such plates, and in employment of them much room is left for further development of skill. Even so, there is something enticing about the results attained in some of these color pictures and a strong incentive to bring them all up to the level of the best.

While I am not an authority on photographic matters there are some phases of this color photography to which it may be useful to invite your attention. It consists, at base, in breaking up all the tints present in an object into 3 primary colors, red, yellow and blue. Then projection or printing, these are re-combined to reproduce the original tints. In color printing both stages have been fairly well mastered, since the colors can be separated by filters and the resulting engraved plates can be printed one over the other with different colored inks, of which there is always an abundant supply. With direct color photography there is no such freedom. The light passes through a single filter and its chemical action upon the emulsion with which the plate is covered is supplemented by that of the chemicals used for development of the image. Beyond that, little can be done.

Photographers profess to find many difficulties in manipulation of the plates now available. The emulsion is extremely sensitive to light, and therefore easily rendered useless, yet the exposure required is 60 times as long as for the usual extra rapid single-tone plate.



The light, also, must be very strong for the snapshot which is essential in this work and to effect that very large amounts of flashlight powder must be used; the reason being that the light passes first through the lens, then through a filter, and finally through the glass of the plate, which is 1.5 mm. thick, before reaching the sensitized film. Complete darkness is advised, both when inserting the plate in the camera and when developing; at most, a dark green light screen is permitted, with no direct illumination. The makers of such plates do not themselves feel too much confidence in the uniformity of the chemical reactions, and after a few disappointments the average photographer feels less. Hence, the unequal results obtained up to the present time. Hence, also, the differences that will be observed in the effectiveness of such pictures. Moreover, the pigmented emulsion material covers the plate so densely that penetration for screen projection is much impeded. If, in presence of all these difficulties, one does get a good result the satisfaction is all the greater.

Despite these drawbacks, I think you may be disposed to agree that even with the plates now available it is possible to lift the image out of the single plane, and to present for inspection something that gives a good idea of the relation of tissues and also the color differences, both of which factors are out of range of the single-tone photograph. For instance, in one of the photographs taken in color a skin graft is seen to have a quite different shade from that of the rest of the face. Here, a single dark toned photograph would have indicated a smooth and apparently adequate repair, whereas this color picture shows why a tattooing process was necessary to eliminate this difference, due, by the way, to a difference in texture and color between the skin of the face and that of the other parts of the body, of which little or no note was formerly taken in planning these repairs.

If the color photographic process can be perfected these "still" photographs will serve sufficiently well the needs of the essential record, so far as concerns plastic surgery about the face; motion pictures of these procedures are neither practicable nor desirable, for it

would be quite impossible to follow, for example, the movements of instruments used within the nose for re-adjustment of tissues and such manifestations can be shown better by means of "animated" drawings. On the surface, what would be most visible is the suturing, which, while interesting and important, consumes a great deal of time in doing the same thing over and over. In other fields, however, the motion picture has a very definite usefulness. Dr. Montague has just recently described the method by which such a record has been kept of all the rectal operations done at Bellevue Hospital during 11 years, and has told what are the great advantages of having such a record, from the viewpoint of teaching. He observes that while it is not possible, in practice, from a distance of 20 to 50 feet, in the amphitheater, to see much of what happens in a visible operative field of perhaps 4x6 inches, the view of which is frequently obscured, it is possible to learn a great deal when the same scene is magnified for presentation on a screen 6x9 feet, with all the phases faithfully reproduced; to say nothing of having all the cases of a number of years available for study at leisure or for consultation when some one such case demands immediate study. Dr. Albee, who has several times insisted upon the preference to be accorded to the cinema as the means of demonstrating operations for which he is famous, also emphasizes the impossibility of the student seeing from his place in the amphitheater the actual steps of the operation.

When it comes to demonstrating that function has been restored, the motion picture principle does have an application to plastic surgery of the face, for function and motion are, for our purpose, inseparable, and function cannot be demonstrated without motion. It is reported that in Europe (I have not heard of it as yet in America) they have begun to take motion pictures of surgical procedures in colors, so that before long it may be possible to see, somewhere in Europe, the photographic record of a dozen operations of whatever sort one chooses to ask for, all in natural colors, every vessel, for example, showing in its own color and not, as now,

blurred into the general black. Thus, truly, will great surgeons be immortalized; when students can see the actual work of instruments in their hands instead of trusting to the inadequate description made by their pens. It appears that in taking these pictures the camera is set up close to the operative field, but as the photographer must be kept out of the way his view is through a telescope placed at some distance; his control of the camera being electrically arranged. The separation of colors is affected by an arrangement of mirrors, from one of which an image is directed to the film through a red filter, from a second through a blue filter, and from a third through a green. These images lie side by side on the film strip; necessitating a jump of 3 spaces at every change of image. In projecting the developed pictures, these partial images are superimposed in front of the light, with complementary filters in front of the projector to restore the color values. It is obvious that if this system can be perfected and made fairly economical it will play a great part in the future of surgical teaching, and perhaps in connection with other departments of medicine, for there is a significance to color in relation to health and disease, just as there is a significance to motion in relation to function.

There is one phase of plastic surgery to which your attention may be invited by anticipation, for unless I am mistaken these color pictures reveal that there is a patient's estimation of the results in these repairs which is different from that of the surgeon. The operator's test of success is restoration of function and the esthetic improvement. It does occasionally happen that when he is fairly satisfied, considering the condition to begin with, the patient, if he is one of the kind who expect perfection, does not agree with him. But it also happens, perhaps by way of compensation, that the patient is very happy over what the operator regards as at best an inadequate presentation of the human countenance in its familiar phases. The reason for this may be commonplace but it has its importance.

The possibility of earning a living, the possibility of marriage, the possibility of enjoying

the happiness normal to one's station in life, all are commonplace enough, but if one is denied them, if one feels that he is hopelessly deprived of them, then, for that individual, the commonplace holds all the elements of tragedy, and if, after long being denied them, the patient finds the position changed, it is not altogether surprising, perhaps, if he places upon what has been done for him a valuation of his own that in no way resembles the coldly critical estimation of the operator himself.

I mention that because in the pre-operative condition of all the patients participating in this demonstration of functional restoration the photograph first taken fails to indicate the full extent of the loss. In 6 of the 7 cases there was loss of ability to find employment, and that was threatened in the seventh case. What has happened? One patient was thought to have but a short time to live; she is now self-supporting and therefore is happy—relatively, perhaps, but still happy. Another had fled from all social contacts and was a burden to others, who could give her but little; she now has a good position and makes a full share of the enjoyment of life as she sees life. A third, who believed her active career to have been definitely ended, is again giving all her energy and enthusiasm to fitting herself for a position as teacher. A fourth, who was about to lose her position, has had her salary raised. The 3 men have all found work of the kind for which they are fitted, whereas 2 of them had been refused work, not once but repeatedly, and the third was sure that was to be his fate. Something of all this, I believe you may find, is to be perceived as animating these amateurs of the motion pictures. I wish it were possible, as it is not, to indicate what was the pre-operative condition of one of whose approaching marriage I have just been informed.

Such considerations apart, the purpose of the pictures is to indicate the results of certain operations in relation to the restoration of function, the restoration of function being, as it cannot too often be reiterated, the first, the most important, almost the sole object of every repair or correction of this nature, since functional and esthetic values seem to go to-



gether in the normal human. Whatever produces dysfunction produces deformity, and with function restored disfigurement is easier to eliminate.

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## PHYSICAL THERAPY—ITS PROSPECTS

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Three separate articles in a recent Journal of the American Medical Association testify to the importance of physical therapy in the medical discussions of the day. Its use is becoming daily more widespread among physicians. Most of the doctors of our acquaintance have installed some form of physical apparatus in their offices. Nearly every hospital is organizing a department of physical therapy.

The public is awake to the advantages of physical treatments. Many patients ask for it. The osteopaths are forgetting osteopathy and practicing physical therapy. Chiropractic is no longer the fad; yet the chiropractors thrive by applying physical therapy. Their skill is feeble. Nevertheless they have helped some patients, as all of us know.

The future of physical therapy is bright. The developments in science of the last decade, in the use and control of light, electricity, radio waves, etc., prophecy even greater physical agents as therapeutic aids of the future. Electricity is the source which gives us the light rays, x-rays, ultra-violet rays, heat rays, Grenz rays and others. All of these affect the tissues of the body, some to promote healing and others to cause destruction. We may surely anticipate the discovery of still further physical properties now hidden from our unseeing eyes, and additional therapeutic advantages for our known remedies.

Moreover, there are inherent dangers in this development and widespread utilization of physical therapeutics. Its forceful protagonists find a use for it in every disease. The hidebound conservatives call it all trash.

Somewhere between the two is the definite and logical field of use. We have evidence that the Council of the American Medical Association is slowly defining the approved use of physical therapy.

The recent convention of the American Electrotherapeutic Society in New York requested the Bureau of Standards at Washington to assume the burden of standardization of physical therapy equipment and every manufacturer was also requested to submit products to the bureau for testing. For instance, every make of diathermy machine would be tested and stamped for voltage, amperage and frequency. Just as 25 years ago with unstandardized drugs, so today apparatus of misrepresented power and capacity is being sold to physicians.

Our therapeutic results from physical agents will be measured by 4 factors.

(1) Apparatus. Undoubtedly cheap and ineffective machines are being offered to the medical profession. One must carefully select apparatus of proved worth.

(2) Types of cases treated. Unless the medical man uses physical therapy advisedly and with moderation in those cases only in which he may anticipate some benefit he will undo his good results.

(3) Combination of treatments. A diathermy treatment alone will not suffice to cure a condition that requires the grouped effect of diathermy, sinusoidal current, massage and exercises. More often than not a combination of treatments or modalities is necessary to obtain the result. If the doctor is not equal to this, either in equipment or inclination, he will be disappointed.

(4) Technic. It becomes more and more evident that in physical therapy, as in all other forms of therapy, it is not always what we use but how we use it. Every patient is a separate and distinct problem. For example, the application of diathermy to accomplish our purpose varies with each subject and frequently with each successive treatment. The position of the electrodes is seldom the same for any 2 cases. Therefore, to use physical therapy the doctor must know how, and that

knowledge can scarcely be gained from sales talk or propaganda leaflets.

So if you use physical therapy, be mindful of these cautions:

- (1) Use standard apparatus.
- (2) Select your cases.
- (3) Use a combination of methods if desirable.
- (4) Learn this subject as any other special branch of medicine, that you may apply it properly.

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## OTITIS MEDIA AND ITS COMPLICATIONS

(The following 3 papers were read as a Symposium on Acute Infections of the Middle Ear, at the June meeting of the Morris County Medical Society)

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### OTITIS MEDIA

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The diseases of the middle ear are divided into 2 groups, as catarrhal and purulent inflammations, and these are again divided into the acute and chronic types of otitis media.

In this paper I will confine myself to the acute conditions as these are the ones in which the general practitioner is most interested.

Etiology—There are a number of predisposing causes to all inflammations of the middle ear: obstruction to the nasal passages due to enlarged turbinate bones; deflected septum; adenoids; congenital smallness of the entire nasopharyngeal anatomy. Other causes are infected tonsils or teeth, or, infection in the frontal, maxillary or ethmoid sinuses.

The exciting causes are a pharyngitis, or the ordinary cold in the head; a complication of the acute infectious diseases such as measles or scarlet fever; use of the nasal douche, when water is forced up in the eustachian tube setting up an acute inflammation.

Symptoms—There is a dull feeling about the ear or there may be pain sharp in character and quite severe at night. In children this form is accompanied by fever. The pain

depends upon the severity of the inflammation and the pressure exerted on the drumhead by the exudation, or the great retraction of the drum. The pain may be of very short duration or, on the other hand, may continue for several days. Deafness and noises in the ears are other symptoms complained of, varying in degree with the intensity of the inflammation.

Treatment—Keep the patient in bed and give saline catharsis. In the early stage the artificial leech may be used in front of the ear. An astringent nasal spray helps to keep open the nasal passages and also the mouth of the eustachian tube. In children, warm water poured into the ear will often stop the pain. Some prefer dry heat applied by means of a hot water bottle or hot salt bag. If the drumhead is retracted, then, inflation of the middle ear might be advisable. If there is bulging of the drum, incision is indicated.

Acute purulent otitis media differs from the catarrhal type in greater intensity of the stage of inflammation and the occurrence of a purulent discharge with perforation of the ear drum. It usually occurs in connection with acute or chronic nasopharyngeal catarrh and may be due to the same causes that produce acute catarrhal otitis media. Besides influenza and colds, measles and scarlet fever play an important part. Children are more apt to have this disease than adults and it occurs more often in the winter and spring months.

At first the drumhead becomes gradually pinkish; ecchymoses or vesicles filled with serum or blood are sometimes noticed on the drum or on the walls of the external canal. As the disease progresses the redness of the drum becomes more intense and finally a portion of the drum bulges. If this bulging drum is not incised at an early date, perforation is apt to occur with a discharge of pus.

Symptoms—Pain is the most prominent symptom and it is usually severe and more intense at night. The patient describes it as a pounding hammering pain. After perforation occurs, the pain becomes less or sometimes ceases at once. Perforation may occur in a few hours or not for 3 or 4 days and in



some instances perforation does not take place at all. The temperature in children may be quite high,  $104^{\circ}$  or  $105^{\circ}$ , but in adults it ranges from  $100^{\circ}$  to  $102^{\circ}$ . Tenderness over the mastoid process is often noted, especially before perforation or incision of the drum.

Treatment—The patient should be kept quiet in bed, given a light diet, saline catharsis, nasal spray or cocain and adrenalin. Dry cotton in the ear and heat applied by means of a hot water bottle or hot water instilled in the ear. Early incision of the drum is a very important procedure.

Paracentesis is not practiced in the catarrhal conditions as this procedure is of no avail in improving the acuity of hearing. In general, paracentesis is indicated in acute inflammations of the tympanic cavity where the drum presents either a diffuse or a circumscribed bulging due to exudate within the middle ear. Pus within the cavity is often demonstrable through the drum by the slightly yellowish tinge which it imparts to the otherwise reddened membrane. A bulging drum, fever, and localized pain are operative indications subject to individual variations. While children almost invariably present a high fever, adults on the other hand, have either a very slight rise in temperature or no rise at all. A bulging drum does not necessarily mean the presence of a purulent exudate behind it, as cases have been observed where bulging has been due to an excessive swelling of the mucous membrane lining the tympanic cavity. There are other cases in which the drum presents a generally diffuse swelling, is of a bright red color, and is coated with loosened epidermic scales to such an extent that one can hardly estimate the middle ear conditions.

In small children it is often difficult to get a view of the drum, as the external auditory canal is extremely narrow and may be partially filled with a mixture of epidermis and cerumen. In many of these cases it is necessary to syringe the ear with water to remove all foreign material in order to get a good view of the drumhead. In the aged, whose drums have become thickened or in cases of long standing, chronic catarrhs where the drum is the site of fibrous and calcareous de-

posits, it is a difficult task to establish the fact that there exists a bulging of the drumhead.

These obscure cases are usually the most dangerous as the delay in resorting to paracentesis may result in extension of the infection not only to the mastoid process but also to the internal ear if not the cranium. Neither should one operate promiscuously upon the obscure case, for to do so is to invite an infection of the middle ear where none may have been present prior to the paracentesis. In doubtful cases, paracentesis is indicated where the pain is severe and the patient is forced to pass sleepless nights, and when the mastoid process is tender upon pressure. In infants, it is indicated when handling of the ear evokes pain cries or when the child rolls its head on the pillow and when it sucks with difficulty, interrupting its nursing with frequent cries, but swallows readily when given nourishment by the spoonful.

In the absence of pain and tenderness over the mastoid antrum, even if tenderness over the mastoid tip be present, expectant treatment may be tried cautiously but the case should be closely watched. In all cases where symptoms of pus retention are presented, that is, where an exudate comes away under pressure in a pulsating stream through a spontaneous perforation, and in all cases evidencing meningeal irritation the perforation must be enlarged. In cases which show signs of meningeal irritation, wherein no perforation of the drum is present, paracentesis is urgently called for.

In paracentesis, combinations of various drugs with cocain have been advocated as a local anesthetic but experience has found them ineffectual. The use of phenol, menthol and cocain is inadvisable because the phenol, acting upon the delicate tissues of the drum, so destroys the clinical picture that on the days succeeding the paracentesis the drum presents a discoloration due to the caustic action of the drug. In this manner, judgment of the progress of the pathologic process is interfered with; furthermore, in a great many instances the combination of phenol, cocain and menthol affords no relief from pain when the drum is incised. Nitrous oxide or ether

are the safest and most widely used anesthetics today. In cases where there has been no spontaneous perforation and which present a bulging drum, the site of election for incision is the postero-inferior quadrant, selected because it affords the best drainage for the tympanic cavity. The incision is begun at the top and carried downward in a curved line, with the concavity of the curve facing anteriorly. When the superior posterior quadrant is bulging, and is the site selected for incision, there is some danger of dislocating the stapes, or it may be fractured or even torn from its articulation at the oval window. The possibility of injury to the jugular bulb should be remembered when operating upon children; and when the antero-inferior quadrant is selected there is the danger of injuring the carotid artery. Following performance of paracentesis the patient should be put to bed and kept as quiet as possible. Repeated irrigations of the affected ear with hot solutions, such as boric acid or sodium bicarbonate, may be ordered. In the ordinary course of events the wound in the drum heals upon subsidence of the middle ear inflammation, without scar formation. It is needless to say that many patients have been spared mastoid involvement, with its consequent dangers, by simply opening the drum. There are, however, those cases which begin with involvement of the mastoid cells simultaneously with inflammation of the middle ear; consequently one cannot expect to obviate mastoiditis in these cases by incision of the drum for the relief of pus retention, since the etiologic factor has not been removed by the paracentesis. These cases, when the infection in the mastoid process becomes severe enough, will come to operation on the mastoid, regardless of whether paracentesis has been performed.

Immediate effects to be expected from paracentesis are prompt remission of pain, a fall of temperature to normal or nearly so, except in children where it may take 24 hours for it to come down; whereas in adults persistence of the fever for a similar period should always be viewed as suspicious of involvement of the mastoid cells.

## MASTOIDITIS

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Infection of the mastoid process is nearly always secondary to an otitis media. It does happen occasionally that in influenza, tuberculosis and syphilis a primary mastoiditis occurs, as well as after trauma, as a metastatic infection or as a consequence of a deep seated furuncle, but these origins are rare. Cases are reported in which a mastoiditis was found with apparently a normal middle ear. These are explained usually by the fact that in some cases the communication is completely blocked off between middle ear and mastoid after the infection has taken place. The middle ear condition then goes on to resolution, if sufficient drainage can be gotten, while the mastoid cells retain the infection which then has no avenue of escape.

Why do we have mastoiditis in one case and not in another? The answer is to be sought for in several directions—the virulence of the infection, physical condition of the patient, or abnormal anatomy. These are perhaps the chief factors. Let us consider first the anatomy of the part.

The mastoid process is a pyramidal mass of bone behind the auricle. Except when altered in structure by chronic infection, it is composed of an inner and an outer table separated by cells which may extend to the tip, upward into the squamous part, forward into the zygoma, downward toward the jugular bulb, and backward behind the sinus, even in rare cases being found in the occipital bone. The clearing out of these cells may disclose necrotic areas in the immediate vicinity of the jugular bulb or the facial nerve, either of which may have been already exposed by the infection. The mastoid cells communicate with each other and with the middle ear; the largest cells being the antrum which opens into the attic by the aditus, thus standing between the middle ear and the rest of the mastoid cells. The antrum and the mastoid cells close to it are lined with mucous membrane



which is continuous with that lining the middle ear. For purposes of drainage, it is always necessary to determine the position of the antrum in the operation for mastoiditis. Its localization is also important on account of its intimate relation with other structures. Its roof forms part of the floor of the middle fossa. Anteriorly, it opens from its upper part into the attic and stands in relation to the posterior canal wall. Internally, is situated the external semicircular canal with the facial nerve below it. Externally, it is separated from the cortex by a variable number of cells. It may have the lateral sinus in relation to it posteriorly. The bony plate over the dura and sinus as well as the outer table of bone are sometimes thick and hard, sometimes of paper-like thinness. The outer table, the external cortex presents the suture between the squamous and mastoid portions, which in the child remains open; this might be called a safety-valve, since in younger patients the pus can escape through it instead of burrowing more deeply. Hence, the frequency of subperiosteal abscess in the first few years of life. The mastoid cortex also presents the orifice of the emissary vein, which perforates the cortex to empty into the lateral sinus.

The lateral sinus, one of the larger blood sinuses of the skull, and the one most commonly attacked by infection, describes an s-shaped course inside the inner table, appearing in the mastoid portion as an elevated plate of bone. As it comes into relation with the mastoid it bends downward from the horizontal at an angle, called the knee, and goes more deeply to leave the mastoid as the jugular bulb and so make its escape from the skull. The sinus may be superficial or deep, and either at some distance back or crowding so far forward as to make opening of the antrum very difficult. On either side of the sinus, the inner plate overlies the cerebellum. The roof of the antrum protects the temporal lobe.

Variations in the anatomy of the mastoid affect not only the pathology but the symptomatology as well, and also the course of disease, for with a very small aditus, perhaps

blocked with granulations, escape of pus from the mastoid antrum into the middle ear is rendered more difficult. A thick cortex will prevent our getting mastoid tenderness until much later than usual, and a thin bony covering over dura, sinus or facial nerve (and much more in the presence of dehiscences) will make for earlier involvement of the structures beneath. It should be noted in this connection that the floor of the antrum is below the level of the aditus, and this makes for poor drainage.

Any peculiar structure, then, of the mastoid cells, favors retention of the infection. Lowered resistance of the individual undoubtedly plays a part also. The exanthemata are particularly prone to produce mastoiditis, as are also pneumonia and influenza.

Infection having been produced in the mastoid cells, reaction to the invasion begins, and we must at the outset emphasize the fact that in every case of purulent otitis media the mucous membrane lining of the antrum and contiguous cells shares in the tympanic inflammation. It becomes hyperemic and swollen, and we have pus formation, as in the middle ear, occurring first in the antrum, then later in the other cells. As long as it does not go beyond this stage, prompt treatment of the middle ear may bring about resolution, and the mucous membrane may come back to normal. If, however, the process continues, we get an extension to the more distant cells. The blood supply of the bony structure is cut off, and, from the empyema of the antrum that we started with, we go on to a necrosis of the bony walls of the cells, which now coalesce, the smaller particles of bone being absorbed, the larger pieces separated as sequestra. Continuance of the condition brings about an erosion of one of the bony plates surrounding the mastoid cells, and we get infection tunneling up to the cerebrum, back to the cerebellum or lateral sinus, forward to the facial nerve, or, rarely, causing labyrinthitis by way of the external semicircular canal, unless it breaks externally. In this last case we have a subperiosteal abscess which may perforate the skin and establish a fistula. Occasionally, the pus breaks through the tip and goes down

beneath the sternomastoid muscle; a Bezold's mastoiditis. Rarely, the infection travels in from the antrum through the petrous bone to the apex of the pyramid. Then we may get a syndrome described by Gradenigo, consisting of mastoiditis combined with pain over the distribution of the fifth nerve, and paralysis of the sixth or sometimes of the fourth nerve. Once there is evidence of bone destruction, a cure cannot be hoped for without operation.

The day has passed when an ear is considered to be doing well as long as it discharges freely, and in an acute ear condition our problem is to determine when the process has passed the stage at which we may hope to bring about a cure without surgery, at the same time intervening before complications have had time to develop. In such case the fever curve may help. If the temperature drops after opening the drum, and then rises again in a few days, it is significant, especially if the discharge continues profuse. The discharge may suddenly become more profuse or it may occasionally nearly disappear, in conjunction with other symptoms. Prostration is usually marked, with headache and sometimes nausea and vomiting; patient may complain of dizziness; pain is commonly present, deep-seated and worse at night; facies become anxious; tenderness appears over the mastoid process in the localities of the antrum, tip, and emissary vein. The blood count, both total and differential is increased. X-rays will show cloudy cells, with possibly evidence of breaking down of the bone. The decision, however, nearly always rests on the appearance of the ear canal. The postero-superior quadrant of the drum sags, and the canal is narrowed. The discharge may pulsate, and is commonly thick and profuse. In very severe or neglected cases, edema may appear in a few days, especially in children, and torticollis may occasionally be seen when the tip is extensively involved.

Importance of the bacteriology of the infection cannot be over-estimated and a direct smear from the perforation is invaluable. *Streptococcus mucosus capsulatus* is the most virulent of all the organisms causing mas-

toiditis, on account of its insidious nature. Nearly every case of this infection comes to operation, and then the destruction is often alarmingly out of proportion to the clinical symptoms. In fact, the symptoms may almost completely clear up on incising the drum, and the patient insists that he feels quite well, but, with little warning, we may have the appearance of an intracranial complication in a few days or weeks. A large percentage of these cases are in diabetics and nearly all occur in adults.

With furuncle of the external canal, especially of the posterior wall, we have a swelling of the soft parts which may very closely simulate subperiosteal abscess. There may be edema extending over part of the mastoid and pushing forward of the auricle. However, the ear is not pushed down as well as forward, as in mastoiditis, and tenderness is not present on palpation over the mastoid; it is elicited only when the auricle is moved. There is less general reaction and the pain is not so boring. It is more likely to be brought out by chewing. X-ray may help in doubtful cases, but the history and especially the appearance of the normal drum will usually set us straight. Enlargement of the glands that lie over the mastoid may also take on some of the appearance of subperiosteal abscess. These glands are often enlarged from chronic otorrhea, or eczema, or any infection of the scalp.

With a suspected case of mastoiditis, the early treatment is that of acute purulent otitis media; i. e. attention to the middle ear, to the nose and throat, and general care. When it has become evident that drainage by way of the middle ear is not sufficient to bring about a resolution of the inflammation, nothing is left to do but secure drainage posteriorly, and this is the aim of the mastoid operation. To uncap every infected cell without damage to the important structures in the vicinity, to establish, if necessary, adequate drainage through the aditus into the middle ear, and if any doubt exists to make sure that the middle ear itself has the freest possible communication with the external canal; these are the essentials. The antrum having first



been opened, the cells around it are broken down in all directions until healthy bone is found. If necrotic bone overlies the sinus or dura, or if from the history, physical findings, or laboratory reports we suspect deeper trouble, we expose these structures and deal with the condition disclosed.

Treatment of the chronically discharging ear presents other and more puzzling difficulties than confront us in the case of the acute ear with its sequella of acute mastoiditis. The discharge that persists commonly indicates that the infection has been severe or that there has been a concurrent weakening infection. Scarlet fever is prone to do this; also diphtheria and measles, pneumonia and influenza. In the presence of a chronic discharge the otologist has to keep in mind the possibility of bone necrosis, which may in time extend to dura or sinus. Again, the greater an ear discharge, the greater the chances of permanent impairment of hearing. To determine the prognosis and hence the treatment, we must take into consideration several factors. The history of the case is often of value. A chronic discharge following one of the exanthemata is especially suspicious. The character of the discharge, whether foul or odorless, mucoid or purulent, often shows whether there is deep-seated trouble or whether the infection is limited to the eustachian tube and middle ear. The culture and smear show a mixed infection.

The advice we give the patient must be regulated by the condition we find. With a mucopurulent, odorless discharge a clean-cut perforation in the drum, no acute signs or symptoms, and fairly good hearing when the discharge is wiped away, the evidence is away from an extensive bone necrosis. On the other hand, the discharge may be foul-smelling, brownish, and unchanged by local treatment; the perforation ragged; hearing poor, due to the presence of granulations and polypi in the middle ear and to necrosis of the ossicular chain. In this class of case we have the possibility of intracranial trouble, and sooner or later may have to advise a radical mastoid operation.

There are certain conditions, which if present in a chronically discharging ear decide for

us the question of operation. These are first, cholesteatoma. When present, the indication is for operating as soon as it can easily be arranged. Facial paralysis appearing in a case of this kind also calls for immediate operation, as do also an acute flare-up of pain, tenderness and fever. A subperiosteal abscess, sagging of the posterior canal wall, or evidence of intracranial involvement, speak for themselves.

The treatment varies in accordance with the indications. The nose and throat must be cleared of any inflammation, and especially all adenoid tissue must be removed. The nasal sinuses must be examined, and, if necessary, trouble there eradicated. The middle ear must be cleared of polyps, granulations removed, and cleansing drops instilled. If the discharge is foul and does not clear up soon under this treatment, or if any of the complications mentioned above supervene, surgery is our only source of relief; by this we mean a radical mastoid operation. This involves enlarging the external auditory canal and converting the middle ear and mastoid spaces into one cavity, at the same time closing off the eustachian tube. All necrotic bone is removed, and the cavity allowed to dermatize, unless skin-grafting is done. In this way the focus is removed and a dry ear follows. Occasionally, if the necrosis is less than was expected, a radical mastoid operation can be avoided by performance of a very thorough simple mastoidectomy. The aditus is enlarged and the attic thus opened widely, while the middle ear is cleared of all granulations by way of the canal. This is sometimes sufficient, but if found inadequate, a radical may be done later.

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## COMPLICATIONS OF MASTOIDITIS

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Morristown, New Jersey

The most frequent mastoid complication is lateral sinus thrombosis; occurring in about 1 case in 100. It occurs with either chronic or acute mastoiditis, but much more commonly with the acute. Always of either streptococcus or pneumococcus infective origin, the latter

is more dangerous. The clinical symptoms are usually very striking and almost pathognomonic. A sudden chill or chilliness and a temperature ranging from 105° or thereabouts to around 99°, with such remissions each day or so; often profuse sweating; no pain. The eye-ground symptoms, which I trust Dr. Mial and Dr. Gibb will dwell upon later, are not constant. They are apparent in about 1 out of 5. When I have noted them, they have varied from, a slight fullness of the retinal veins upon the diseased side, to a real neuroretinitis of both sides, but more marked upon the diseased side. In every case this neuroretinitis has completely and fairly promptly cleared up. I have also noted this occurrence after ligation of the jugular vein and when operation demonstrated an occluding clot in the sinus; which has made me wonder if the pathologic fundus did not depend upon the fact that the circulation through the petrosals was cut off. The symptom of tenderness along the anterior border of the sternocleidomastoid muscle, often noted in text-books, I have never found, although I have had some cases where the thrombus reached well down into the jugular vein. Concerning laboratory aids, a positive blood culture is of diagnostic value, while a negative one, even after 72 hours, is of no value. The blood count is not significant. It is not of diagnostic value. The thrombus may be mural or occluding, usually the latter. Treatment is purely surgical and consists of prompt removal of the internal jugular vein in as great extent as possible, tying off its tributaries—the facial, lingual, and thyroid—opening the lateral sinus as extensively as may be, removal of the clot, and, by cutting away the outer wall of the sinus, converting that into a gutter instead of a tube. Prognosis is very favorable; if promptly diagnosed and so treated, practically all recover.

Meningitis is, fortunately, a much less frequent complication. I have found it in but 7 cases, all complicating acute mastoiditis. Clinical symptoms of prominence, of course, are the rather continuous high temperature, headache slight or severe, rigidity of neck, increased reflexes, restlessness, paralysis of various muscles, coma. Blood count shows a very high

leukocytosis; usually about 30,000 with high polynuclear. The spinal count shows increase in total count and in polys. Organisms may or may not be isolated. All cases, where any organisms were found in spinal fluid, were either streptococcus or pneumococcus. If organisms are found, the prognosis is practically hopeless. A fatal issue within 3 days may be expected if pneumococcus is found and within 1 week with the *Streptococcus mucosus capsulatus*. Treatment consists in drainage of cerebrospinal fluid, preferably by repeated spinal tapping. I have had 2 recoveries; where no organisms were found. One, Dr. Griswold, who had the following symptoms: temperature around 105°; opisthotonos; trismus; coma; very cloudy spinal fluid under pressure. Operation done, splitting crucially the dura over the temporosphenoidal lobe. The other was a case with headache, rigidity of the neck, increased reflexes, high temperature, high cell count of blood and spinal fluid; operation, drainage of mastoid and repeated spinal tapings.

Septic labyrinthitis is another very interesting, but uncommon, complication. I have recognized 6 such cases, all complicating chronic mastoiditis. In 2, the invasion was plainly found to be through the external semicircular canal. In the others, the route could not be demonstrated. Clinical symptoms are dizziness, staggering, nausea and vomiting, vestibular nystagmus, loss of hearing. Temperature and blood count about normal. The extent of the labyrinthitis is judged by the amount of hearing. Of course, when the cochlea is destroyed, the hearing is gone. This also usually determines the time for operation. Although waiting, while there is still some hearing may be permissible, operation is demanded when the cochlea is destroyed, for one cannot know how soon the infection may reach the meninges through the internal auditory meatus. Operation is the so-called radical mastoid and a labyrinthectomy. Prognosis is quite good, if operation is prompt. All cases cited were cured by operation; one of those, with large sinus in external semicircular canal, without labyrinthectomy.

Brain abscess has been next in frequency



with me; all complicating chronic mastoiditis; 4 temporosphenoidal, and 1 cerebellar; 2 were left temporosphenoidal in right handed persons and had aphasia. All went into coma before operation. Two temporosphenoidal cases recovered. Clinical symptoms are generally those of brain pressure, with headache, slow pulse and low temperature, often subnormal. Occasionally, localizing symptoms are found. The treatment is, of course, operative; abscess cavity must be found, opened and drained thoroughly. There may be more than one abscess cavity. A case of spontaneous cure of brain abscess was reported by my father, Dr. T. Y. Sutphen.

A complication, which has been noted and of which I was so fortunate as to see 2 cases lately, is that of abducens paralysis. These 2 cases were both of *Streptococcus hemolyticus* infection, both complicated acute mastoiditis, and in both was there some optic neuritis, more marked on the affected side. Both cases finally cleared up. In talking with Dr. Dixon and

Mr. Burchell, in the laboratory of the New York Eye and Ear Infirmary, I found out that they had seen a few such cases this year, some of which had come to autopsy. They had demonstrated, in these cases, invasion of some very deep cells in the petrous pyramid, which had not been opened in operation, in fact they were practically unapproachable even by the method that Dr. Richards described some years ago. I wonder if the relative frequency of such cases in the last few months is due to some unrecognized organism, or to some particular virulence of a known one.

In conclusion, the best treatment for mastoid complications is preventative, and by an early and proper simple mastoid operation can nearly all of them be avoided. The streptococcus infection and more particularly a pneumococcus capsulatus, are indicative of grave danger of ensuing complication and every such case would be better off operated upon before 2 weeks' duration of the discharge. Even in this latter infection, the mortality with simple mastoidectomy is practically nil.

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### INDIAN SUMMER

A silken curtain veils the skies,  
And half conceals from pensive eyes  
The bronzing token of the Fall;  
A calmness broods upon the hills,  
And Summer's parting dream distils  
A charm of silence over all.

The stacks of corn, in brown array,  
Stand waiting through the tranquil day,  
Like tattered wigwams on the plain;  
The tribes that find a shelter there  
Are phantom peoples, forms of air,  
And ghosts of vanished joy and pain.

At evening when the crimson crest  
Of sunset passes down the West,  
I hear the whispering host returning;  
On far-off fields, by elm and oak,  
I see the lights, I smell the smoke—  
The Campfires of the Past are burning.

—*Tertius and Henry van Dyke.*

## In Memoriam

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YOUNGMAN, Maurice Decker, a pioneer resort physician, died at Wernersville, Pa., on October 16, 1927. Dr. Youngman was born at Rondout, New York, March 23, 1858. He graduated from the Hahnemann Medical College, Philadelphia, in 1880, practiced medicine for 2 years in Manchester, N. J., and located in Atlantic City in 1882. He practiced general medicine in this city continuously until a few years ago, when failing health caused him to retire.

Although small of stature and apparently not of a robust nature, he was most active and energetic in his work and at all times was ready and willing to assist in any civic, philanthropic, or patriotic duty. He organized and was President of the first Homeopathic Society in this community, in 1897. He was a member of Trinity Lodge, Free and Accepted Masons, and was very prominent in Masonic circles. For many years he was First Vice-President of the Atlantic Safe Deposit and Trust Company, among whose Directors his judgment was considered excellent, and he did much for the progress of that thriving institution. He was one of the founders of Ventnor, and was otherwise heavily interested in real estate.

He possessed a very high standard of medical skill and knowledge and for many years his services were very much in demand as a consultant with his fellow practitioners. Ranking high in his own profession, a member of various organizations relating to his special field of work, busy with many civic and religious activities, yet no call from the sick or afflicted ever failed of a ready response from him. His genial personality and vibrant human energy endeared him to all who had the pleasure of his acquaintance. To know him was to love him. Atlantic City is healthier and more prosperous because of Dr. M. D. Youngman.

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MACHLIN, Abraham, 211 Lexington Avenue, Passaic, New Jersey, Chief of the Obstetric Department of Passaic General Hospital, died suddenly October 24, 1927, while engaged in performance of a cesarean section at the above mentioned hospital. Dr. Machlin was 53 years old and is survived by a widow and one son.

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HITCHCOCK, William Edwin, 53 Belleville Avenue, Newark, said to be the oldest practicing physician of that city, died at his home, October 6, 1927, at the age of 85 years.

Dr. Hitchcock was born in New Haven in 1842. He was a graduate of Yale and the University of Virginia. Shortly after leaving the latter university he joined the Union Army and served as a surgeon. He saw 3 years' service in the Civil War and later served 2½ years in the navy.

In 1869 Dr. Hitchcock moved to Newark, and for 8 years he was surgeon of the New Jersey Brigade, State Militia, and 16 years surgeon of the First Regiment, New Jersey National Guard.

He was a member of the Knights of Pythias, Northern Lodge, F. & A. M.; Friendship Lodge, I. O. O. F.; the New Jersey State Medical Society and the Pathological and Anatomical Association.

Surviving him are his wife, a son, William B. Hitchcock, and two grandchildren, Inez Hitchcock and William D. Forest.



# JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:  
All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

## TAKING TIME BY THE FORELOCK

At the instigation of our very energetic State Society President, the Program Committee held a meeting at Hotel Chelsea, Atlantic City, October 14, to consider plans for the next annual convention. This is probably the earliest date at which such proceedings have ever been started but President Conway and the members of the committee are a unit in the determination to make the meeting of 1928 the best in the history of the society. It is only through such promptness, and the immediate enlistment of willing aides, that such a laudable ambition can be attained, and the committee has wisely begun an early consideration of the difficult problems with which it has to deal. Requesting that we publish a summary of its proceedings, the committee hopes to stir up general interest in a series of proposed departures from the plan heretofore followed, and to evoke suggestions of a constructive character with a view to developing a program that will give something near to universal satisfaction.

The first question considered was—what can we do to induce a larger attendance? Registration figures of the past 5 years show an average attendance of only 15% of the total membership; a percentage that is certainly not justification for pride or boasting. Further analysis discloses the fact that this 15% of our members is made up very largely of the "steady regulars"—the majority being comprised of those who rarely miss a meeting. Now that means, when viewed from the other side, that at least 50%, possibly 70%, of our

enrolled members never attend the state society meetings. Why is this? It is true that such absentees are represented by county society delegates in the consideration of business affairs, but, have they no interest in the scientific sessions or is there something wrong with our programs, which makes them insufficiently attractive to bring members to the convention? Will you who are embraced in the list of nonattendants explain your absences and tell us what would induce you to attend future meetings?

The business transactions of the society have grown to such an extent that much time must necessarily be devoted to their consideration, and at recent meetings it has been difficult to provide this time without interfering with the period allotted to discussion of scientific matters. To avoid repetition of this conflict, the committee proposes to devote one entire day to sessions of the House of Delegates, so that there will be abundant time for consideration of all subjects and most of the business can be gotten out of the way before opening of the scientific program. The dates selected for the convention are June 6 to 9, inclusive. The Board of Trustees will meet Tuesday evening, June 5. The House of Delegates will convene at 9.30 a. m., Wednesday, June 6, will have that entire day for consideration of its problems, and can, if necessary, hold short sessions in the late afternoon of Thursday or Friday without encroaching upon the schedule of scientific sessions. This plan adds an extra day to the convention period, but it divides the program so distinctly

that those who attend as delegates from component county societies can transact the business of the organization and then be free to participate in the medical discussions or to return home if they must, while those whose interests are primarily scientific or who are scheduled to present a paper at some specific hour will not be interrupted by an unexpectedly prolonged debate by the delegates.

The subject of "section meeting" is another that has been discussed at various times, and which the committee desires to try out at the coming meeting. Our total membership is not sufficiently large, even if a majority happened to attend a meeting, to justify establishing a sectional gathering for each of the recognized specialties. There is, however, reason to believe that inauguration of some special sections will prove beneficial to the society. There are a sufficient number of eye, ear, nose and throat specialists among our members to justify their having a meeting of their own. The same statement is probably true of pediatrics; possibly of some other medical or surgical branches. We do not recall a single paper on the programs of the last 3 years that would have enticed an ophthalmologist or rhinologist to attend. We may feel strongly that the general practitioner ought to hear what the specialist has to say about problems in his limited sphere, and that the specialist should keep in close touch with general medicine, but it is a proved fact that only a very small percentage of either group will listen to the communications presented by the other. Let us try this scheme of section meetings, at least as related to pediatrics and to ophthalmology and otolaryngology, and learn whether it is practicable. They can conduct their meetings in separate rooms and at the same time that the general scientific sessions are engaged with a program covering general medicine and surgery.

Profiting by the experience of the A. M. A. and encouraged by the limited effort last year, the committee has also decided to provide for a continuous exhibition of medical moving pictures. The society will thus be provided with a menu from which each mem-

ber will be able at any time to select mental pabulum according to his needs.

With the House of Delegates meeting in advance, and with 2 section meetings and a moving picture show running independently, the Program Committee will have 5 sessions open to scientific topics of general interest. Several subjects are being considered for symposium treatment, and it is probable that a few distinguished members of the profession will be invited from other states to deliver addresses, but the time available makes it possible to accept a larger number of volunteer papers than heretofore. It is important, however, that you communicate with the chairman of that committee promptly if you have a scientific contribution to offer.

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#### WELFARE COMMITTEE WORK

The newly appointed Welfare Committee held its organization meeting on October 9 and set in motion the work for the new fiscal year. Following the custom inaugurated last year, we are permitted to publish a report of the proceedings so that all members of the state society may be apprised of just what work the committee has in hand and the stage of progress attained.

We direct your attention to the rather full report in this issue of the Journal, in the section devoted to Current Events, because it deals with a number of problems that are, or should be, of vital interest to every one of you.

We would particularly like to have you read that portion of the Secretary's Report dealing with the public educational program, and request that you offer us suggestions for development and improvement of the plans presented. Assistance is solicited in procurement of speaking engagements, and in the submission of material for broadcasting. Every member can help in some way to promote this educational campaign; some can secure opportunities for the Secretary or his assistant to appear before lay organizations, men's or women's clubs; some may volunteer to aid in this work by accepting assignments to themselves address clubs in their own coun-



ties or districts, or, to speak over the radio or prepare short messages to be broadcast by the Secretary—such volunteers will be cordially welcomed. Some of you may be willing to contribute new ideas for incorporation in the program; these we will be delighted to receive and to submit to the Welfare Committee.

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## REGULATION OF PHYSICIANS BY LAW

Under the above title, we have been publishing in the Journal a series of special articles, the tenth appearing in this issue and concluding what we originally intended to present as an analysis of the Kelley brochure upon this subject and submission of the basic science provision given out last year by the A. M. A. There is no intention on the part of the State Society to seek legislative modification of the existing medical practice act in the immediate future, but it was deemed wise to carry on a critical analysis of the several propositions made with intent to develop an ideal law, with special reference to their applicability to New Jersey, in order that our members might be prepared to decide what is best for this state, and prepared to act intelligently and unitedly whenever consideration of new legislation may be forced upon us. By breaking the Kelly article into parts and concentrating attention upon specific items it has been easier to study the significance of special points and then to secure a more comprehensive grasp of the whole. We hope this method of study has been helpful to many of our readers.

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## ILLNESS OF A FORMER OFFICER

As we go to press, news comes of the serious illness, in Victoria Hospital, Miami, Florida, of Dr. William J. Chandler, who for so many years served this society faithfully and well as its Secretary. Dr. Chandler is now well along in the ninth decade of life. A message of sympathy and of hope has been sent, in the name of the society, to Dr. and Mrs. Chandler.

## THE WOMAN'S AUXILIARY

While the State Society was in session in June, delegates from 14 auxiliaries to county medical societies met and organized an auxiliary to the parent body. Since that convention, 4 other county societies have authorized the formation of auxiliaries, and it is expected that the 3 remaining counties will take similar action in the near future.

Now, if these auxiliary bodies are to accomplish their purpose, if they are to become useful adjuncts to the organized profession, if we are to benefit by the labor already expended in promoting their organization and by their willingness to work in our interest, we must encourage the movement and lend active aid to guide them through the formative stage of development.

We received recently a letter from an officer of one of the newly organized auxiliaries, in which she said—"The local auxiliary did not meet this month. This omission was due to the suggestion of the doctors who felt there was no pressing business, and who advised deferment". She meant, of course, that one or more of the members of the county society to which her auxiliary was attached had given the advice to postpone meeting. There is no reason to suppose that her advisers desired to injure the auxiliary but they certainly gave advice—thoughtlessly, no doubt—that would tend in that direction. There is no more effective means of killing a society than to abandon regular meetings. There is plenty of work for auxiliaries to do in every county of this state. It has not been possible yet to follow up the organization meeting in each county and supervise their development of a working plan; that will be done as rapidly as possible, and we shall try through a special section of the Journal to outline work for all of them. But, meanwhile, encourage every auxiliary association to meet at such regular times as it may have selected and, if necessary, help them to get busy with such of the local problems of your county society as may be entrusted to them.

## Medical Economics

### APPOINTING YOUR PATIENT'S RECEPTION COMMITTEE

Theodora Brownfield, Los Angeles, Calif.

(Reprinted from "Medical Economics" of  
March, 1927)

In the last two years I have averaged, because of ill health, probably a visit a week to physicians. I have therefore had ample opportunity to study doctors' offices, especially the waiting rooms.

Study is the word!

I have whiled, idled, shillied and dallied away full many and many a tedious wait examining in detail every point about various offices, their appearance, their weaknesses, and the atmosphere about them.

And from the bottom of my heart I offer these suggestions for increasing efficiency via the office.

Take up first the appearance of the doctor's waiting room. Should it not be cheerful, light, sunny if possible, comfortable in temperature and well ventilated?

Cheerfulness is the greatest requisite of all. What a world of difference it makes to the pain-wracked individual, the timid patient, the depressed and mournful one, to step into a reception room that is all smiles!

It is right here that the physician often gains or loses a regular patient. Most people are affected more than they realize by the appearance of a place, and if it isn't inviting, they don't return.

I know a waiting room where it never seems long to wait because a south exposure lets in four windows-full of sunshine, as well as a sweeping view of the busy city where this office is located.

Ventilation is also delightful here, since it is high enough up in the office building to get good air. And in winter steam heat always keeps the room at a comfortable temperature.

And, by the way, that matter of heating! It so happens that cold waiting rooms are to be found.

I've heard people complain again and again of cold waiting rooms, vowing never to return there again because of the chill that started up an ear-ache again, or induced a few sniffles, and this while waiting for help to get well!

Comfortable temperature—cool in summer and warm in winter—is another efficiency measure to keep patients contented. And when ventilation is being provided, a

sufficient supply of fresh air to drive out "druggy" smells will get a vote of thanks from most patients.

A discussion of furniture can hardly be covered here, but one point does need emphasis and that is comfortable chairs in which to sit. Sit is a word of only three letters, but my Heavens, it has pervaded my entire mind at times.

One office I visited prides itself on the small stiff-backed chairs that are ranged neatly around the room, probably with the idea of efficiency, but it works quite the other way.

Still another thing that I have seen—believe it or not—is the use of make-shift furniture.

An old piano stool, odd shaped seats and settees, soiled lace curtains, faded draperies, scuffed and threadbare rugs and dusty paper flowers—I mean I *actually* have! I have seen all of these things where a prosperous practice made them wholly unnecessary.

Clean wholesome surroundings are essential in doctors' offices. As for ornaments, or trimmings, better none than jaded or faded ones.

Old magazines have long been the butt of so-called jokes, pleasantries, or wise-cracks.

Is there a reason for it? Yes sir! If doctors only realized how helpful it is for fidgety patients to read while waiting, I'm sure they would subscribe to at least five good magazines—a funny one, an all-around one, fiction, scientific, and children's periodicals, besides the daily papers.

It is just good plain sense to keep patients from getting tired or out of humor, when so little is needed to please them.

The atmosphere of the office is given quite often by the attendant, or nurse in charge. Not always does a doctor realize the impression that is being created before the patients reach his own private office.

I'm thinking particularly of an office where the attendant has a hesitant, uncertain manner, that is at the same time abrupt almost to the point of rudeness.

My first conclusion was that she was overworked, or new in the position. But after a year's observation I have decided that it was her idea of being businesslike.

To any query about the doctors who had offices in this suite of rooms, she would leave patients dubious as to the chance of ever seeing any one of the doctors.

"You might wait"—"I think he will come in today"—"He may come in around three" or "Wait if you wish" were some of her characteristic replies, none of which tended to increase an attitude of good-will, and I've



seen many a patient slip out with a pathetically puzzled expression.

Yet another attendant I have met gave quite an unfortunate impression of a certain doctor by boosting incessantly for him. The sad (or funny) part was that he needed no such advance publicity agent.

A call on the telephone would bring forth the attendant's announcement in loud tones—"Oh yes, Mrs. So and So—Come up right away. We'll try to squeeze you in somehow, but the doctor is so rushed today. We are so busy—"

And the few patients waiting in the room would look from one to another in amused silence.

Then there is that terrifyingly formal nurse who takes the patient's name and address down in frigid silence and leaves the patient wondering—"Oh operating room, where isn't thy sting!"

Another attendant, quite the opposite in disposition, is the noisy, slangy one who spends her spare time chatting chummily with some one patient about the details of a case.

And while she may be more approachable, she does not give a pleasing impression. Too much sociability may be annoying.

If a doctor has a relative—his wife, his daughter, or his sister perhaps—to assist, I firmly believe it is well to avoid sociability, for many patients do not welcome being talked over in the family.

The attendant most to be desired, of course, is the one who makes patients feel at ease while waiting and sees that they get their turn *in turn*.

In regard to "who's next"—one office I have visited has a very good method. As soon as a patient enters, he is given a little round ticket with a number on it. He may, if familiar with the custom, help himself to one, the tickets being fastened on a stylus on the desk by the entrance. This eliminates any feeling of favoritism in showing some patients in ahead of others.

As for ushering the patients in to the doctor, I have another little suggestion. It is indeed awkward for a patient, going for the first time into an office, to have to learn for himself that office's customs. The girl in charge should take the initiative.

I recall the embarrassment I felt in a large crowded waiting room, when the jerky, abrupt receptionist called aloud—"Your turn. The doctor can see you now"—and I had no idea which door to head for!

"Which way?" I ventured looking about at several doors.

She nodded down a long corridor that had three closed doors.

"At the end,"—she called as I hesitated again, and when I arrived at the door I knocked.

Observing this she called—"Don't knock—go in"—and thus did I learn the custom of this office.

A little explanation along this line, showing the way or telling how or what to do—to knock, or ring, or walk in—all helps the physician and is gratefully received by the patient.

And I think the doctor himself should aim to have this point in mind when treating a patient.

Taking things for granted is not always pleasant and many times is awkward, making a patient wish he hadn't come.

I've heard people say—"I won't go again. I felt like a fool"—and yet it was only a slight matter.

Taking blood pressure for the first time or giving a hypodermic may be actually terrifying to the timid patient. Scaring or embarrassing patients does not tend to increase, or enlarge, practice.

A nurse or assistant is of course helpful, for women patients especially like to turn to them for little aids.

The physician can make himself so much better appreciated and liked if he does explain the little steps—what to him is perhaps routine. It is again just a little matter of efficiency that spells success in maintaining a good office practice.

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## Medical Ethics

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### THE RULING DRIVE

#### "The Human Animal"

John Hammond Bradshaw, M.D., F.A.C.S.,  
Orange, New Jersey

The two chief urges of man are the love of life and the propagation of his kind. These are the principal drives that urge him on and on; the former generally continues until life is extinct; the second is an instinctive essence of the humanculous chromosome which is no more distinctive of man than it is of all animals and even plants. As he associates with civilization and rises in the intellectual scale, he quickly accumulates a varied assortment of other drives or urges. These have an ever-present and increasing influence upon him, his deportment, and predicate all his character; for his reaction to his urges dominate his wordly success, his health, his morality, his business-ability and all that go to make him a promi-

nent and desirable or successful citizen. They are the touchstone to his professional career. They are the source of all his ambitions, and their lack or deficiency are the causes of his depressions.

It is interesting to speculate (and as yet it is almost entirely speculation) as to how much the internal secretions dominate man's urges. The "endocrine glands" are such catch words that we are in danger of exaggerating their importance and working them overtime, but let no one dream that they are simply figments of the imagination. The thyroids, adrenals, pituitary, the gonads and ovaries, to say nothing of other vitalizing glandular centers of energy, are as important for our own well being as our brains (when we have any). Do they or do they not control our urges? We are now taught that they do, and that their deficiency or disturbed correlated activity positively affect not only our deportment in life but proclaim to the world whether we will excel or linger behind others of our kind.

The *crux* of matters is that as intellectuals (a term we like to apply to ourselves) we have it in our power, to a certain extent, to control our urges. True, we sometimes meet one of our fellow-kind who appears to be indifferent to the one great driving force of all life—his own preservation. He should be treated as a sick man.

The second great human drive, or instinctive drive—the propagation of his kind—is one for which he has no volition in its ownership or endowment. The disturbances of this one urge have more to do with human happiness and misery than any other one thing on earth. The distorted and deficient and erroneous present-day education of our youth in regard to this urge is not only responsible for a great deal of misery but for much of the existing crime.

Physicians have a wonderful privilege and a great opportunity for duty, in directing the course of this education toward the everlasting benefit of their kind.

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## Esthetics

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### VACATIONAL MEMORIES

In the belief that our readers might enjoy, vicariously, some of the delights expressed by those who spent their vacation periods by pleasant places, the Editor requested several members to contribute for publication some account of their wanderings. It is peculiarly fitting that the first report received deals with a region that we have

visited several times, and each time with an increasing enjoyment. Our national parks embody a series of playgrounds that cannot be excelled elsewhere in the world. Last year the Journal published a trans-continental travel letter from Dr. Lancelot Ely who, en route to Alaska, visited Yellowstone, Glacier, Crater Lake and Mt. Ranier National Parks. It was very flattering, and gave us a delightful sensation, to be told by Dr. Ely that he had found our book—"A Tour of Our National Parks"—serviceable as a guide; as that book is long since "out of print" we can refer to it without fear of being accused of advertising. It is now a distinct pleasure to learn from another society member that our own outburst of joy over Glacier National Park was not an exaggeration of the beauty to be found there.

The communication recently received reads as follows:

With memories of marvelous forms and changing colors, and renewed love of native land, Dr. and Mrs. Alexander MacAlister and Mr. and Mrs. William L. Hurley have returned from an 8 weeks' vacation in Glacier National Park, in Montana, Crater Lake National Park, in Oregon, and some of the wonderland of California.

They call Glacier National Park the most magnificent of all national reservations they have seen. Here, amid emerald lakes, snow-capped mountains, roaring cascades, and miles of wild flowers, they found a degree of relaxation they have never experienced elsewhere, and they have seen the best of European landscapes. The Alps never thrilled them as did the magic lands of Montana.

The Glacier mountains they found in many curious forms, and in gorgeous colors that seemed to change while they looked at them—from greens, pinks, purples and reds, to grays and back again to pronounced colors. Elsewhere the land was a study in geology, and a gigantic palette of colors, as if the "Unseen Painter" was still at work. Of wild flowers they found no less than 157 varieties, and, with all these marvels, eye and mind never wearied. Taking all together, it seemed to be a combination of poem, painting and grand organ voluntary, and, coming down to the prosaic, they enjoyed all the comforts at the Park Hotels while their spirits soared over beauties too vast to be classed as anything but a designed manifestation of Omnipotence.

Going to Crater Lake Park, they found a lake of unbelievably blue water, 6 miles in diameter, occupying really the crater of an extinct volcano. Boats traverse the lake



and automobiles run around its rim, enabling one to see all the strangely formed and colored peaks of lava. Wild flowers, too, added to the awe-inspiring spectacle.

In California, they visited the Mount Wilson Observatory of the Carnegie Institution of Washington, traveling 9 miles of picturesque road to reach the elevation of 6000 feet, and incidentally observing the lights of 62 cities and towns as they traveled. They saw 2 telescopes, one of 100 in. and one of 60 in. diameter. The staff of the Observatory is made up of 20 astronomers and 50 other employees, 12 of the latter being computers. Observations are made on about 290 days of the year, the employees going to the Observatory only on days when conditions are good for seeing the starry heavens. They live in Pasadena, 12 miles distant. The labor of building the Observatory was almost incredible, as related to the Camden party, and the cost ran into many hundreds of thousands of dollars.

In Los Angeles, the party saw the building of the Public Library, which was of especial interest to Dr. MacAlister, for he is a Trustee of the Camden Free Public Library. The central building has 3 stories, and is 200x239 ft. A two-story wing measures 89x129 feet, and there is a central tower rising 188 feet above the sidewalk. The exterior is surfaced with buff stucco. The library property fronts on 4 streets, and covers an area of about 300x745 feet. The floor space is 260,000 square feet, and the cubical contents are 4,750,000 feet. The book capacity is 1,212,500 volumes; there are 15 public reading rooms with 1200 seats, and study, club and lecture rooms with over 500 seats.

A ray-encircled book above the south entrance to the building has beneath it the inscription—"In the world of affairs we live in our own age; in books we live in all ages". At one side of the book is a figure representing the "Thinker" and at the other side a figure representing the "Writer". Above these are other figures—Heroditus, for History; Virgil, for Letters, Socrates, for Philosophy; Justinian, for Statecraft; Leonardi da Vinci, for the Arts; and Copernicus, for Science. There are other carvings on the exterior of the building, among them being memorials to Gutenberg, Caxton and Morris, the printers, and figures representing Music and Art. Inscriptions, too, are plentiful, one over the entrance to the rooms reserved for music and the arts reading: "Love of the beautiful illumines the world". Another inscription reads: "The morning stars stand together and all the sons of God shouted for

joy", while still another reads: "The heavens declare the glory of God, and the firmament showeth his handiwork".

Over the west entrance, and right beneath the central tower, an inscription reads:

"Races of men increase and races fade,  
And in brief space fare their mortal way,  
Like runners passing on the lamp of life".

Almost bewildering, too, is the number and beauty of the paintings on the interior walls, those in the children's room being, in part, 10 subjects from Sir Walter Scott's "Ivanhoe".

Every department of reference work is provided for in the building. The Library has 643,977 books and an annual circulation of 5,521,889 volumes. It has also 231,799 book-borrowers, 45 branches and 72 deposit stations. With equipment the cost amounted to \$2,300,000 exclusive of site.

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## Special Article

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### REGULATION OF PHYSICIANS BY LAW

(Tenth Article)

As stated in our last article, one of the means proposed as a remedy for existing conditions is that cultists of all kinds shall be absorbed into the body of nonsectarian medical practitioners. There is grave doubt of the possibility of accomplishing this end by any means whatsoever; certainly no one has yet proposed a plan that holds out reasonable hope for success and is above criticism. Holding the opinions that abolition of the cults is impossible, or that absorption into the group of scientific professional workers is inexpedient, if not really undesirable, some students of the problem have been seeking a middle-of-the-road solution, and in that direction the so-called "basic science laws" were suggested. Enactment of such legal provisions in the states of Connecticut and Wisconsin led the American Medical Association, through its legal department, to submit for consideration of all the states a model form of law covering the basic science provisions. That proposed act and the introductory remarks of its author, Dr. William C. Woodward, in presenting it through the Journal, are herewith given:

#### BASIC SCIENCE ACTS .

Basic science acts recognize the existence of various cults and of the dogmas about which they have been organized. They recognize also, however, that nonsectarian prac-

tice and cult practice are based on fundamental sciences with which dogma has and can have nothing to do—such sciences, for instance, as anatomy, physiology, chemistry, bacteriology and pathology. Basic acts, therefore, ignore all dogma and fix for all practitioners a uniform minimum standard in the sciences named.

To avoid the prejudices of cultists against examinations by nonsectarian boards and the distrust of nonsectarian practitioners in the ability of the cultists to conduct adequate examinations even in the fundamental sciences, basic science laws provide that the board shall be made up of persons not engaged in the practice of the healing arts. They overcome existing differences in the standards of pre-professional education by allowing even high school graduates to be examined in the basic sciences. Persons who pass the examinations held by the basic science board are given certificates to show that fact. Such certificates, however, do not entitle them to practice in any way; they merely authorize their admittance, on the compliance with other necessary conditions, to examination by any one of the several professional examining boards the certificate may elect. Without a certificate no applicant can be examined professionally. However, the certificate alone does not entitle him to appear for examination before any professional board; each board may impose such further requirements as the laws of the state authorize. The medical examining board may require evidence of at least two years of college work, of four years of study in a medical college and of one year of hospital experience, before admitting the applicant to examination. The chiropractic examining board, however, may be satisfied to accept the certificate of the basic science board as evidence of adequate preprofessional education—graduation by a high school—and insist on evidence of a graduation by a chiropractic college after not less than eighteen months of study. Other boards are at liberty similarly to apply their own standards to applicants seeking licenses from them. Every board is at liberty to accept as adequate the examination given by the basic science board in the fundamental sciences or to reexamine the applicant on those sciences.

The reasonableness and fairness of the plan outlined is obvious. It recognizes that a certain knowledge of anatomy, physiology, chemistry, bacteriology and pathology is at the basis of all diagnosis and treatment whatever. It recognizes that the possession of such knowledge by all practitioners is necessary for the safety of the public. It ignores

all differences of opinion among practitioners as to methods of diagnosis and treatment and sets up a nonprofessional board, representing the public, to determine the fundamental fitness of all would-be practitioners. Such candidates as this nonsectarian board has determined to be fit, and no others, are permitted to appear before the professional examining boards. The professional boards retain their present function of determining the fitness of the applicant to practice the particular method of healing professed by him. The method comes as near as any plan that has yet been offered to establishing a single standard for all who practice the healing arts in those states having independent sectarian boards. How far it is applicable to states having mixed boards depends on the organization and methods of such boards.

To facilitate a study of the basic science law and its adoption where deemed desirable, the Bureau of Legal Medicine and Legislation has prepared the draft of such a law and submits it herewith. The draft is susceptible of modification to meet the needs of any particular state and the ideas of those who seek to promote such legislation in any state. The draft is not offered as the last word in basic science laws. On the contrary, the bureau will welcome criticisms by state medical associations, county medical societies, medical examining and licensing boards and the medical profession generally. Through such criticisms it will be possible to perfect a bill that will represent the consensus of medical opinion throughout the country.

#### DRAFT OF PROPOSED BASIC SCIENCE ACT

*Title.*—An act to establish a state board of examiners in the basic sciences underlying the practice of the healing arts, to provide for its organization and powers, to provide that certification by such board be a prerequisite to eligibility for examination for license to practice the healing arts and to define healing arts.

*NOTE.*—In some states the constitutions require that the title of an act express the purpose and contents of the act. The title set forth above, will, it is believed, conform to that requirement.

*Enacting Clause.*—The enacting clause should follow the form customary in the state.

*SECTION 1.—Basic Science Certificate Required.*—No person shall be eligible for examination or permitted to take an examination for a license to practice the healing art or any branch thereof, or granted any such license, unless he has presented to the licensing board or officer empowered to issue such a license, a certificate of ability in anatomy, physiology,



chemistry, bacteriology, pathology, diagnosis and hygiene (hereinafter referred to as the basic sciences), issued by the state board of examiners in the basic sciences.

NOTE.—The sciences named are those that may be fairly said to have the same implications, whether the practitioner proposes to practice nonsectarian medicine or to follow the dogma of some cult. Whatever may be said of separate licensing boards for the nonsectarian practitioner and the cultists, there seems to be no valid argument against a uniform examination in the basic sciences, particularly if the examination is conducted, as is here proposed, by persons who are not active practitioners of the healing art. The number of branches named can be reduced, of course, to meet the views of the profession in individual states, but before determining to reduce the number of branches, careful consideration should be given to the possible effect of such reduction on reciprocity.

SECTION 2.—*The Healing Art Defined.*—For the purposes of this Act, any license authorizing the licentiate to offer or undertake to diagnose, treat, operate on or prescribe for any human pain, injury, disease, deformity or physical or mental condition is a license to practice the healing art.

NOTE.—The purpose of this definition is to bring within the scope of this Act all licenses to practice medicine, osteopathy, chiropractic, naturopathy, sanipractic and other modes of healing or attempted healing. The definition here given is broad enough to cover dentists, midwives, nurses and optometrists, but a later provision excepts them from the operation of the Act.

SECTION 3.—*Board of Examiners in the Basic Sciences: Appointment and Personnel.*—The Governor shall appoint a State Board of Examiners in the Basic Sciences (hereinafter referred to as the board), consisting of five members, who shall be appointed one for one year, one for two years, one for three years, one for four years and one for five years, from the dates of their respective appointments. On the expiration of the term of any member, the Governor shall fill the vacancy by appointment for a term of five years. On the death, resignation or removal of any member, the Governor shall fill the vacancy by appointment for the unexpired portion of the term. Every member shall serve until his successor is appointed and qualified. The members of the board shall be selected because of their knowledge of the basic sciences aforesaid. No member of the board shall be actively engaged in the practice of the healing arts or any branch thereof.

NOTE.—This section aims at the creation of an examining board in which, by reason of the overlapping of the terms of members, there will be a continuity of policy and administration. No direct prohibition has been placed on the appointment of physicians, osteopaths, chiropractors or other cultists, except that the appointee shall not

be in active practice. It has been proposed to limit the appointments of members of basic science boards to members of faculties of approved universities and colleges. It has been proposed, too, to forbid the appointment of any one having any connection with any school teaching the healing art in any form, or any one interested in any such school. The provision here made leaves to the Governor the determination of the advisability of appointments within the classes just named. So far as the medical profession in any state is concerned, it should certainly be able to bring enough influence to bear on the Governor to see that the rights of nonsectarian medicine are not infringed in making appointments.

SECTION 4.—*Organization of Board: Election of Officers, Seal, Rules, Compensation.*

—The board shall meet and organize as soon as practicable after appointment. It shall have power to elect officers, to adopt a seal, and to make such rules as it deems expedient to carry this Act into effect. The board shall keep a record of its proceedings, which shall be prima facie evidence of all matters contained therein. Each member of the board shall receive ——— dollars per diem and actual expenses, when actively engaged in the discharge of his duties. The compensation of the members and other expenses of the board shall be paid out of the fees received from applicants, but this is not to be construed as preventing appropriations to cover deficits. The treasurer of the board shall give such bond, running in favor of the state, as the state treasurer shall determine. The office of the board shall be in the state capital, and quarters for such office shall be assigned in the capitol building or any other building occupied by the state government.

SECTION 5.—*Fees Payable by Applicants.*—

The fee for examination by the board shall be ——— dollars. The fee for reexamination within any twelve month period as hereinafter provided shall be ——— dollars, but the fee for reexamination after the expiration of twelve months shall be the same as the original fee. The fee for the issue of a certificate by authority of reciprocity, on the basis of qualifications as determined by the proper agency of some other state, shall be ——— dollars. All fees shall be paid to the board by the applicant at the time of filing application. The board shall pay all money received as fees into the state treasury, to be placed in a special fund to the credit of the board. The treasurer shall pay out of such fund all expenses incurred by the board, on vouchers signed by the president and the secretary of the board.

SECTION 6.—*Examinations.*—The board shall conduct examinations at such times and places as it deems best. Every applicant, except as hereinafter provided, shall be ex-

amined to determine his knowledge, ability and skill in the basic sciences. The examination shall be conducted in writing, but may be supplemented by an oral examination, and if practicable shall be supplemented by examination in the laboratory, dissecting room and dispensary, and at the bedside. If the applicant receives a credit of 75 per cent or more in each of the basic sciences, he shall be considered as having passed the examination. If the applicant receives less than 75 per cent in one subject and receives 75 per cent or more in each of the remaining subjects, he shall be allowed a reexamination at the examination next ensuing, on application and the payment of the prescribed fee; but he shall be required to be reexamined in all branches. If the applicant shall receive less than 75 per cent in more than one subject, he shall not be reexamined within the period of one year next following his original examination, nor unless he presents proof satisfactory to the board of additional study in the basic sciences sufficient to justify reexamination.

**SECTION 7.—Requirements for Certificate.**—No certificate shall be issued by the state board of examiners in the basic sciences unless the person applying for a certificate submits evidence satisfactory to the board: (1) that he is not less than twenty-one years of age; (2) that he is a person of good moral character; (3) that he was graduated by an accredited high school or school of similar grade, or possessed educational qualifications equivalent to those required for graduation by such an accredited high school, before he began the study of the healing arts, and (4) that he has a comprehensive knowledge of the basic sciences as shown by passing the examination given by the board, as by this Act required.

**NOTE.**—No evidence is required of the applicant of the extent and nature of his knowledge of the basic sciences. These are to be determined by the board by examination. The professional licensing board to which the applicant must subsequently apply for his license to practice is to be at liberty, it is proposed, to accept the findings of the state board of examiners in the basic sciences with respect to the proficiency of the applicant in those sciences, or to reexamine the applicant in those sciences on its own account.

**SECTION 8.—Reciprocity.**—The state board of examiners in the basic sciences may in its discretion waive the examination required by section 7, when proof satisfactory to the board is submitted, showing that the applicant has passed the examination in the basic sciences before a board of examiners in the basic sciences or a board authorized to issue licenses to practice the healing art, in another state,

when the requirements of that state are, in the opinion of the board, not less than those provided by this Act. The provisions of this section shall apply only to examinations conducted by the boards or officers of states that grant like exemption from examination in the basic sciences to persons granted certificates by the board of this state.

**SECTION 9.—Appeal from Board's Decision.**—Any applicant who has been denied examination by the board may within thirty days after such denial appeal to the \_\_\_\_\_ court for the county in which the board has its office; and such court shall on such appeal inquire into the cause of such denial. If in the opinion of the court admission to examination was refused without just cause, the court may order the board to examine the applicant. Notice of an appeal from the denial of the board of the right to examination may be served on any member of the board by leaving with him or with any adult member of his staff or household, at his usual place of business or abode, an attested copy thereof within thirty days after said board has notified the applicant of its refusal to examine him. Hearings of such appeals shall proceed in accordance with such rules as the \_\_\_\_\_ court may determine.

**NOTE.**—An applicant unlawfully denied admission to examination would have the right without the foregoing provision to the aid of the courts in compelling the board to examine him. The fact that this provision is written into the law, however, will tend to show to those who may believe that they would be denied entrance to examination on the basis of alleged preprofessional or professional education or on other technicality, that they may have their rights protected by the courts. The names of the courts to which appeals should be taken will vary in the different states.

**SECTION 10.—Certificates and Licenses Void.**—Any basic sciences certificate and any license to practice the healing art or any branch thereof which is issued contrary to this act shall be void. A board which has issued a license by virtue of a void basic science certificate shall revoke or cancel such license. The procedure in such revocation or cancellation shall be in accordance with the provisions of the act under which such license was issued, for the cancellation or revocation of licenses generally. The certificate issued to any person by the state board of examiners in the basic sciences shall be automatically revoked by the revocation of any license issued to such person to practice the healing art or any branch thereof.

**SECTION 11.—Practice Without Basic Science Certificate Forbidden.**—Any person who shall practice the healing art or any branch thereof without having obtained a valid cer-



tificate from the state board of examiners in the basic sciences, except as otherwise authorized by this act, shall be fined not more than \_\_\_\_\_ dollars or imprisoned for not more than \_\_\_\_\_ days, or both, in the discretion of the judge.

NOTE.—The exception referred to in this section is governed by section 17 which provides that this Act does not apply to dentists, nurses, midwives, optometrists and persons licensed to practice the healing arts or any branch thereof at the time this Act is passed.

SECTION 12.—*Fraudulent Certificates Forbidden.*—Any person who shall obtain or attempt to obtain a basic science certificate by any dishonest or fraudulent means, or who shall forge, counterfeit or fraudulently alter any such certificate, shall be fined not more than \_\_\_\_\_ dollars, or imprisoned not more than \_\_\_\_\_ days, or both, in the discretion of the judge.

SECTION 13.—*Fraudulent License Forbidden.*—Any person who shall obtain or attempt to obtain a license to practice the healing art or any branch thereof from any board authorized to issue any such license, without presenting to said licensing board a valid certificate issued by the state board of examiners in the basic sciences, as in this act required, shall be fined not more than \_\_\_\_\_ dollars or imprisoned not more than \_\_\_\_\_ days, or both, in the discretion of the judge.

SECTION 14.—*Issue of Fraudulent Licenses Forbidden.*—Any person who knowingly issues or participates in the issue of a license to practice the healing art or any branch thereof to any person who has not presented to the licensing board a valid certificate from the state board of medical examiners in the basic sciences, or any person who has presented to such licensing board any such certificate obtained by dishonesty or fraud, or any forged or counterfeit certificate, shall be fined not more than \_\_\_\_\_ dollars, or imprisoned not more than \_\_\_\_\_ days, or both, in the discretion of the judge.

SECTION 15.—*Fees Paid Unauthorized Practitioners Recoverable.*—Any money paid out by any person as compensation for services rendered in the practice of the healing art or any branch thereof to any person not validly licensed to practice such healing art or branch, when the payer did not know that such person was not validly licensed so to practice, may be recovered by the person who has paid such money by a suit instituted within two years from the date when such fee or compensation was paid.

NOTE.—One who practices the healing art or any branch thereof unlawfully cannot now obtain the

aid of the courts in collecting money for his unlawful act. This section proposes merely to permit one who has innocently paid money for such unlawful services to recover it by suit.

SECTION 16.—*Enforcement.*—The state board of examiners in the basic sciences and the various boards authorized to issue licenses to practice the healing art or any branch thereof shall investigate any supposed violation of this act and report to the proper county attorney all the causes that in the judgment of such board warrant prosecution. Every police officer, sheriff and peace officer shall investigate all supposed violations of this act and apprehend and arrest all violators thereof. It shall be the duty of the attorney-general and of the several county attorneys to prosecute violations of this act.

NOTE.—One difficulty with the enforcement of existing medical practice acts is the fact that the duty of enforcement is not clearly placed. The section set forth above places and distributes the duty in such a manner as to make many state and municipal agencies responsible, including those who are best situated to enforce the law; namely, police officers, sheriffs and peace officers generally.

SECTION 17.—*Exceptions.*—This Act shall not be construed as applying to dentists, nurses, midwives or optometrists, practicing within the limits of their respective callings; nor to other persons licensed to practice the healing art or any branch thereof in this state when this Act takes effect; nor to persons specifically permitted by law to practice without licenses, practicing within the limits of the privileges thus granted to them.

SECTION 18.—*Saving Clause.*—No provision of this Act shall be construed as repealing any statutory provision now in force at the time of its passage with reference to the requirements governing the issuing of licenses to practice the healing art or any branch thereof; but any board authorized to issue licenses to practice the healing art or any branch thereof may in its discretion accept certificates issued by the board of examiners in the basic sciences in lieu of examining applicants in such sciences or may continue to examine applicants in such sciences as heretofore. The unconstitutionality of any part of this Act shall not be construed as invalidating any other part thereof.

SECTION 19.—*Short Title.*—This Act may be cited as "Basic Science Act, 19—."

SECTION 20.—*Date of Taking Effect.*—This Act shall take effect on \_\_\_\_\_ (date).

(Discussion of experience with basic science laws, and other articles relating to the general subject of this series will be continued.)

## Observations from the Lighthouse

### PSYCHIC AND EMOTIONAL FACTORS IN GENERAL DIAGNOSIS AND TREATMENT

In the first of a symposium of 5 articles, read before the last annual session of the American Medical Association, on the psychic and emotional factors in various diseases (J. A. M. A., 89:1013-1020, Sept. 24, 1927), Rollin T. Woodruff notes a tendency among internists to consider that some cases are definitely neuropsychiatric and should be transferred to a specialist, while others are not of this type and do not require this sort of examination or treatment. It is his opinion, however, that there is no sharp division. All men, normal or sick, have emotions and emotional conflicts, and all are affected physically by them. He cites the case of a patient whom he first saw one night in an attack of acute abdominal pain so strongly suggesting obstruction of the large bowel that a surgeon was called. In the morning, when the pain had somewhat subsided, fluoroscopy showed the barium filling the rectum and sigmoid to a point 14 in. above the sphincter, beyond which it would not pass. Operation was set for the following day, prior to which time fluoroscopy was repeated and showed the defect entirely gone, as was also the pain, which had evidently been due to a spasm of the sigmoid. Subsequent inquiry revealed the fact that the patient had been under an emotional stress due to a business crisis which had developed on the day preceding the attack. The man was not of the neurotic or psychopathic type, but a well built, vigorous and successful individual, fond of outdoor sports. Because of a muscular spasm superinduced by an emotional conflict which he had been unable to solve, he narrowly escaped laparotomy. According to Woodruff, many patients are not so fortunate under similar circumstances, although some of them have been through some of our leading clinics.

Especially in diabetes are the ups and downs of the patient's tolerance paralleled by events in the psychic sphere. A case in point concerned a business man of 65, who was in the hospital on a quantitative diet, on which, with a small dose of insulin, he was passing practically sugar-free urine. Suddenly one day, without any change in the regimen, he secreted 43 gm. sugar; on another day, 76 gm., and at this time developed a slight acidosis, showing that the increase in the glycosuria could not have been due merely to the ingestion of extra food. It was found that the patient had received news that the corporation in which he had been an officer for 20 odd years had taken steps to retire him, and it was his reaction to this situation that caused his tolerance to fail. It is interesting to be able to measure the power of emotion in terms so tangible as ounces of sugar.

Diagnostic errors resulting from failure to examine the urine and blood are far less frequent than they used to be 10 years ago, but is this true of examinations of the type necessary for the recognition of psychic causes of physical disease? How about certain cases of pylorospasm or cardiospasm; certain cases of asthma or protein sensitization? Given a case of angina pectoris, aneurysm, exophthalmic goiter, diabetes—to what extent do the ups and downs depend on the emotions?

### The Nature and Treatment of Psychic and Emotional Factors in Disease

In discussing this subject, J. Ramsay Hunt calls attention to the fact that it is the mind which bears the burden of every illness, and directs the adjustment of the individual to pain, deformity and invalidism in all its various forms; so that any clinical method which ignores this master function of the body is gravely defective and may lead to serious error in interpretation and treatment.

The nervous system is composed of a closely related series of ascending functional levels, in which the vegetative system is the oldest, and the cerebral cortex is the most recent in development. As the psychologic level is the highest in functional importance, it has a supreme power of control and guidance over all other levels of the nervous system. This being true, it is not difficult to understand why mental states associated with anxiety, fear, depression, despair and prolonged conflict should cause disorders in other portions of the nervous system controlling visceral and somatic function.

What is true of the physiologic activities of the great visceral systems is also true of the functional activities of the ductless glands. The close relationship of these glands to the sympathetic nervous system has long been recognized, and the experimental studies of Cannon have shown the great importance of these chemical agencies in the instinctive reactions of hunger, pain, rage and fear.

There are 2 great pathways for the outlet of repressed psychic energy: through psychic and through somatic channels. Of greater interest to the internist is the latter manifestation, as it gives rise to visceral symptoms closely simulating the clinical picture of organic disease. In another large group of cases, psychic disturbance produces functional paralyses and the sensory impairments of the hysterical, in which the symptoms, although psychic in origin, are closely related to the body function. Many will recall the frequency of this group among the war neuroses, which were relieved by psychic methods of treatment. Respiratory, cardiovascular, gastro-intestinal and genito-urinary functions may be excited and perverted by neural energy which is repressed at the psychic level and converted into somatic channels, where it gives rise to morbid visceral function.

Recognition of psychogenic and functional disorders requires the highest skill and insight on the part of the physician. Such a diagnosis should always be one of exclusion. All the usual methods of clinical procedure, including laboratory technic, should be used in excluding organic disease. The psychic and emotional aspects of the case should then be carefully considered. In any psychogenic disorder it is always possible, with care and skill, to elicit some source of strain and conflict which has contributed to production of the symptoms. These are numerous and complex. Especial emphasis should be placed on emotional conflicts in the psychosexual sphere.

Organic disease having been excluded, and an adequate etiologic factor in the emotional sphere having been revealed, a third test is the characteristic functional nature of the symptomatology. Most symptoms of psychogenic origin, while they may resemble organic disease, have usually certain peculiarities which, to the skilled observer, stamp them as hysterical or psychogenic. A more difficult situation arises when an



organic disease is associated with a psychoneurosis.

The successful treatment of psychic disorders must be directed to the functional level that is affected. Many of the functional and psychic complications encountered in general practice are not serious, and yield readily to the intelligent and sympathetic approach of the physician. The latter, however, must bring a keen and sympathetic insight into the more intricate problems of human nature, together with ability to detect the special focus of irritation in the intricate mazes of a complex emotional situation. The physician who cultivates the field of human nature will find himself the gainer by a broader insight into human life. The man with a large and enthusiastic following among the laity is either a conscious or an unconscious adept in the use of psychologic methods. The processes of suggestion and persuasion play an important rôle in these successes.

In certain types of cases great relief is experienced through releasing a complex and its emotional content by what is termed "mental catharsis", which includes hypnosis and psychoanalysis. The former attempts to explore the unconscious, and by hypnotic suggestion to relieve the psychic dissociation that has given rise to the symptoms. In psychoanalysis the effort is made to release repressed complexes by the method of free association. These are methods which require specialized skill and long experience, and, like difficult technical procedures in other fields of medicine or surgery, should not be attempted without such training. "It is my firm conviction that if the physician in general practice were as alive to the importance of psychic life and health as he is to the ailments of the physical body, there would be far less discontent and mental disorder than is seen today. For many disorders which he is called on to treat are purely psychic, while many others result from psychic influence. But in the last analysis, the burden of all disease whatever is borne by the mind."

#### Psychic Factors in the Course of Cardiac Disease

In the experience of Nellis B. Foster, the psychic disorders that are initiated by imaginary as well as real heart disease are various and important. In concrete cases we find at one extreme clearly defined examples of organic mental reaction due to cerebral congestion, or anemia, or to toxic states resulting from cardiovascular failure, and at the other a pathetic failure of adaptation due to personality or constitutional defects, but not necessarily an inferiority complex. In severe cases of cardiac insufficiency, sleep is disturbed by periods of semiconsciousness, during which some patients are subject to hallucinations. In this type of heart disorder there are profound systemic effects that cannot be ignored. Fever, for example, is invariably present, whether due to infection or to abnormal circulation one cannot say; but it is certain that many persons react to fevers from any cause whatever by exactly these mental states—dreams and hallucinations. What it is that determines why cardiac insufficiency evokes a psychic disorder in one individual and not in another is not known further than that fever produces the same differing effects, depending apparently upon the constitutional make-up of the affected person. In any case, the difference in the mental state night and day is due to variations in the level of mental awareness.

When the myocardial disorder that causes the cardiac insufficiency is a result of arteriosclerosis, and the sclerosis is rather generalized, a quite different psychic disturbance may develop. This may take the form of transient periods of delirium, often nocturnal, but without regularity of appearance. Again, there may be definitely formulated delusions, usually persecutive in nature, or maniacal outbreaks. In older persons this state may continue for weeks and terminate in dementia.

The more subtle changes that develop in personality as a result of some physical restriction are most easily noticeable in children, but even here one must be careful to discriminate. The innate character of the individual affected is quite as important as the force that compels readjustment to a changed environment. There are imperturbable spirits that make only the minimum concession to physical defect, quietly readjust their plan of life and follow old pursuits. Others, less robust in character, tend to capitalize their physical condition by playing on human sympathy. It has been remarked that children with heart disease show a certain lack of initiative in school and are prone to attribute any shortcomings to this weakness. Such an attitude is in no wise surprising, as the majority of normal children will advance any excuse to help them evade an unpleasant chore or win exceptional privileges. But from children who are not in sound health the summary rebuke of the outraged parent or tutor is apt to be withheld, and as a consequence the child grows in the habit of evasion and selfindulgence. The warping of personality is not peculiar to heart disease though it is particularly well defined in this group, the same types of reaction being noticeable among adults. This change in behavior under stress is not, however, the result of some subtle change in character or personality; rather it is an uncovering of the essential nature of the individual and may be a painful revelation to friends.

Of the various ideas of disease, none are so clear cut in the mind of the public as is the conception of heart disease. To the lay mind, pain in the left side of the chest, palpitation, or a sensation of any sort in the general vague region of the heart means heart disease, and heart disease terminates in sudden death. The relation between emotional stress and heart action, so familiar to the physician, is unknown to the layman. It is quite natural, therefore, that anyone subjected to a strong enough emotional shock to induce palpitation, or the sense of oppression that follows fear, may suddenly awaken to his peril from a dire malady. As an example, the case is cited of a woman, middle aged, who came to the author for relief from "heart disease". She stated that when she walked so much as half a block her heart jumped and caused distress. When she remained at home she did not feel discomfort. The patient told of her symptoms with the resigned air of one who already knows the worst. Careful examination did not disclose any trace of cardiac or other abnormality. Various laboratory procedures were carried out to secure evidence that would convince a prejudiced person. This patient did not have heart disease, but she was distressed by a sensation which she had interpreted as a symptom of heart disease. It took both time and trouble to find out that the cause of the sensations which she experienced when she left her home was the fear that she might repeat the

experience of meeting her husband with a woman to whom he seemed devoted and of whose existence she had not known.

There are, then, emotional states producing physiologic defects which are often interpreted as somatic abnormalities. There are also, in severe cardiac cases, psychic disorders representing toxic or exhaustion psychoses; changes in personality which are only psychic readjustments to newly imposed external conditions, and disclosures of personality which are scarcely more than an uncovering of what has hitherto been concealed or dormant.

#### Psychic and Emotional Factors in Their Relation to Disorders of the Digestive Tract

Of 5700 patients seen during the period of the present method of work at the office of James C. McLester, who contributes the fourth of this series of papers, the records of the last thousand have been reviewed with the object of determining the etiologic rôle played by emotional and psychic influences. Of these patients, 28.5% complained chiefly of digestive disorders, and in this group 32.6% were classed as neurotics. So we shall not miss the mark far when we assume that one-third of the patients who come to the consultant with digestive complaints are of the psychoneurotic type. After mature study of these patients, the author is forced to the conclusion that these individuals as a rule are not merely the victims of fortuitous circumstance. The vast majority of them are born neurasthenics. Because of a constitutional lack of balance they are predestined to trouble, and the situations in which they find themselves play a distinctly subordinate rôle to the production of these troubles.

The digestive distress of the psychoneurotic individual, although sometimes greatly exaggerated, is as a rule genuine, as the digestive functions are profoundly under the influence of the emotions. Disturbances of motility are a much more frequent and more potent cause of digestive discomfort than abnormal secretory activity, and the profound influence which the emotions may exert on the gastric and intestinal motility can easily be demonstrated by the fluoroscope. By this means a barium meal given to a hysterical patient for the purpose of visualizing the colon was seen by the author to travel by reverse peristalsis throughout the entire small intestine and appear in the stomach in about 15 minutes.

In these cases a careful examination, undertaken without prejudice, is usually necessary to convince the patient that his troubles are receiving the consideration to which he feels they are entitled. A prerequisite of the psychotherapy which is to follow is confidence, not only in the physician's ability, but also in his genuine interest. The patient should be encouraged to talk freely about his troubles (mental catharsis) and, in addition to the effort to adjust these troubles, pains should be taken to explain to him, tactfully but frankly, the true nature of his disability. He should be convinced that nothing grave is going to happen and that if he will patiently put up with his distress and discomfort and not let them alarm him or grievously annoy him, they will soon become less intense and perhaps finally disappear. It is important that this explanation and warning embrace the patient's whole future. He should be told that, because of the handicap which he carries, other functional disorders may at any time

beset him, but that if he realizes their true nature they can do him little harm. These patients require moral support and to this end they should for a period be instructed specifically as to their daily regimen. The food phobias which they sometimes have are most tenacious but they should always be eradicated. A short stay in the hospital with continuous reassurance and moral support sometimes offers the only means of overcoming them.

#### Influence of Emotional and Psychic Factors on Exophthalmic Goiter, Diabetes Mellitus, and Diseases of the Nose and Throat

Although emotional stress and psychic upsets often apparently initiate exophthalmic goiter, Charles Hugh Neilson thinks it more probable that these are latent cases which have been transferred into active cases of varying degree by nervous shock, and that as the disease progresses the nervous symptoms parallel the toxicity. The so-called crises are not inherently a part of the disease but are usually due to sudden change in the environment of the patient which acts as an added stimulus to an already overstimulated and unbalanced mechanism.

One factor which plays an important part in the genesis of psychoneurosis in this disease is the medical handling of the individual case. Removal to a hospital, a railroad journey to the hospital, a change of nurses or physicians has produced in many instances all sorts of mental derangements. Other features bearing on the development of psychoneurotic symptoms have to do with the proper nourishment of the patient and complicating diseases. The sum total of all the disturbed physiologic functions is an overload in these unbalanced subjects that results in many nervous outbreaks.

The emotional and psychic upsets in the course of diabetes are extremely varied. Depression of spirit, indifference to surroundings, resistance to suggestions, and melancholy with gradual development of coma in unchecked cases are not infrequently seen. The psychotic changes of diabetes surely have something to do with the metabolism and they are usually alleviated by proper treatment. In many cases, however, the psychic and emotional manifestations continue even after the disturbed chemical processes are known to have become fairly normal, and there are no gross lesions to be found in the nervous system or vascular apparatus. On the other hand, a certain percentage of patients with a rather severe type of diabetes never have marked nervous disturbance or develop coma. Is this because these patients have a more balanced nervous system, or is there something in the etiology of diabetes of which we are yet ignorant?

In pathologic conditions of the nose and throat, chronicity is perhaps the most important factor in the psychic disturbance so often found in these patients: (1) chronicity of symptoms and disturbed physiologic functions; (2) chronicity in diagnosis, and (3) chronicity in therapy. Headaches, frontal pressure symptoms, dizziness and frequent respiratory infection gradually wear down the psychic morale of the patient. Diagnosis is often difficult, especially when the physician tries to explain to the patient the reason for his various symptoms. Multiple consultations in the presence of the individual have a depressing effect, as do also the daily or tri-weekly treatments, extending over protracted



periods time. The routine questions asked each time serve to call the attention of the patient to himself and cause a lowered emotional level.

The pathologic physiology found in diseases of the nose and throat is not always the cause of the accompanying nervous psychic or nervous instability. These symptoms are frequently brought on by improper medical handling, in which the physician in his zeal for diagnosis loses sight of the patient. Proper regard for the nervous and mental make-up of the individual patient has not received sufficient attention and the patient suffers as a result.

## Medical Book Reviews

THE INTERNATIONAL MEDICAL ANNUAL, 1927, New York, William Wood & Co.

(Reviewed by F. A. Alling, M.D., Newark)

This is a review of the year's work in the treatment of diseases. The Medical Annual, which has been published for 45 years, is alphabetically arranged and includes not only medicine and surgery, but all the various specialties. It has a wealth of material on all subjects from all countries, in the form of a digest of the original articles.

Treatment of diseases of all countries has been brought up to the minute, and as the publishers bring out, there are discerned in the book, two great simplifying forces striving to impart order and direction to modern medicine. The first is to think in terms of causes. The second, a tendency to use the simple forces of nature as therapeutic agents and not being definitely content to know that sunlight and fresh air are helpful in treating diseases, the desire is also shown to want to know how and why they are helpful.

The publishers are to be congratulated on covering the vast field of the subject, with such conciseness, without sacrificing any important or informing details. Careful captioning and subheading of the subject matter with heavy typing of the important features make of this work an extensive outline. Investigators in any of the fields touched will find the bibliography well selected. The press work is excellent, the illustrations, photographs, and colored x-ray plates are most clear.

Without any spirit of criticism, the reviewer wishes to mention a few things which impressed him:

In the article on "pernicious anemia" there is no reference to the treatment with liver diet, which now seems to be well established. Blood transfusion, arsenic, normal horse serum and intravenous injections of mercurochrome, are agents most stressed in the treatment.

Under "anesthesia" nothing is mentioned about regional anesthesia, which is now being used extensively in this country.

There are two well written and able discussions on the operative treatment of "angina pectoris" and also on "blood transfusions" with the injection of autogenous blood.

The article on the treatment of "burns" with tannic acid is instructive.

Under "diabetes mellitus", while insulin therapy is well discussed, especially in surgical cases, there is no mention of the experimental work being done by Allen on "myrtillin" or by the Germans on "synthallin", which while not curative or able to

replace insulin, still are added links in the chain of treatment.

There is a good article on "focal sepsis" and much stress is rightly paid to this important cause of many diseases whose etiology is hard to determine.

There are long articles as well as original papers on fractures, mental diseases and diseases of the gall-bladder. The diseases of the heart are taken up with special headings of "arrhythmia and cardiographic changes; endocarditis; mediastinopericarditis"; and a term "heart failure" with normal rhythm, which we are more apt to name "chronic myocarditis".

The Medical Annual does not mention many of the drugs used for insomnia (hypnotics), such as luminal, allonal, etc.

There are long articles under the title of "Surgery of the Kidneys", and here regional anesthesia is regarded as practical for operations on every organ of the genito-urinary tract.

Under the heading "Labor" the use of glucose as an oxytocic is discussed and it is claimed by M. Pierce Rucker that normal rhythmic contractions of the uterus are induced by giving glucose by mouth or by enema, avoiding inertia and shortening the first stage of labor. There is described by J. Hendry a method of controlling postpartum hemorrhage, by lifting the uterus out of the pelvis by the hands on the abdominal wall; either as the result of pressure of the thumb and fingers, or because of the traction upon the uterine vessels, the bleeding is lessened much more effectively than by pressing the uterus down in the pelvis.

In discussing "lung abscess" the etiology is mostly dwelt on, and the more radical procedures, either by bronchoscopy or by opening the chest wall directly, are not mentioned.

Thirteen pages are given to "phototherapy" with many illustrations showing patients being treated by direct rays of the sun or by the water-cooled mercury vapor lamp. The cases for which it is suitable, the mechanism of the treatment, and the results are well discussed.\*

In an excellent article on "pneumography", splendid x-ray pictures show lipiodol injections in the lung, to define bronchiectatic cavities. Much attention is given to acute infections of the central nervous system. The last article on x-ray diagnosis contains 11 pages of x-ray plates and text with references to the literature.

This book is worthy to be in the library of the surgeon, internist or specialist. In writing a paper, the references alone would make the book worth owning.

THE SURGICAL TREATMENT OF GOITER. Willard Bartlett, St. Louis—C. V. Mosby Co., 1926, Price \$8.50.

(Reviewed by Dr. John B. Hagerty, Newark, N. J.)

One must admit, after reading Bartlett's Surgical Treatment of Goiter, that the author has been honest and painstaking in his efforts to review the indications for and methods of dealing with this increasingly important disease by surgical means. From a brief but satisfactory review of the history of goiter, showing an early interest in the subject by the author, there follows an excellent article by Wilson, of the Mayo Clinic, in which is set forth the well known classification of the types of goiter, and a consideration of the heart in goiter by Grant, of St. Louis, which brings us to the more practical side of the subject. In a series of chapters the author deals with the indications for operation, question of precedence in

the presence of the surgical ailments, methods of operation in the different types of goiter and varying degrees of tonicity, and a splendid discussion of technic, including that of anesthesia.

In all the above the author shows a deep appreciation of the gravity of the disease and a very high regard for the comfort and the well-being of the patient by attention to the minutest details affecting the result of operation. The chapters on technic are especially thorough and instructive. The question of ligation, now less frequently done since the value of Lugol's Solution in bringing patients into operable condition has been recognized, is dealt with, and a very practical chapter is added on the complications and after treatment, and on laryngeal complications, by Hansel, of St. Louis. This is an especially interesting and explanatory article, though possibly the need for it is less urgent since the method of subtotal thyroidectomy has become the accepted type of operation.

To one seeing much of goiter there can be little dispute at present about the wisdom and efficacy of surgical treatment. The methods of application must depend on individual experiences. Throughout, the author shows an earnest effort to explain the case for surgery, justifying his conclusions by the relation of experiences drawn from his large operative work, and the book will prove very helpful to the large number of workers who are removed from the goiter areas.

## Communications

### A VISIT TO THE UNIVERSITY HOSPITAL, ANN ARBOR, MICHIGAN

(Letter from John Hammond Bradshaw, M.D.,  
F.A.C.S., Orange, N. J.)

On occasion of the recent Clinical Congress of the American College of Surgeons, held in Detroit, Michigan, an opportunity was offered to all the attending surgeons to visit the University Hospital at Ann Arbor (University of Michigan). The arrangements made were most convenient, as large motor busses left the Book Cadillac Hotel, headquarters of the Congress, every morning, and several hundred surgeons availed themselves of this privilege. The ride of 40 miles over Michigan's smooth roads, through the interesting suburbs and the truck farming country, passed pleasantly and quickly. One passed the huge building, home of the General Motors Corporation, the size and proportions of which are visible evidence of the importance of this industry. At a point 20 miles from the hotel one passes the Henry Ford Hospital, and if one has ever looked down on this institution, one now looks up in genuine admiration, for there are few hospitals whose facade is more imposing. True to the schedule of our running time, we approached Ann Arbor before 10 a. m. Let no one coming from "the effete East" fail to be interested in this, the third university as to size in the United States. Only Columbia and California are larger. Ann Arbor itself is an interesting town, but the University is the heart from which all its life circulates. The new (2 years) hospital, situated finely on the highest bluff, is crescent-shaped, with the concavity facing your approach. It is 7 stories high. It was indeed swept and garnished (as usual) for the visiting surgeons. A dozen, plus, interns with badges stood on the steps as a reception committee, and to act as informants

and guides. The latter was necessary, for this is a guest house containing 1210 beds. It was only last year that it registered 29,027 patients. The state of Michigan was far-seeing and progressive enough to appropriate \$4,000,000 for its erection. And one can build quite a house for that sum, if one mixes a few brains in with the brick and mortar. Before leaving, one should not fail to go up to the roof and view the beautiful valley of the Huron.

Operations and events in 9 operating rooms were scaled to begin at ten o'clock. When presented with so many feasts at one and the same time, one is obliged to make a choice. The writer chose the table presided over by Professor Reuben Peterson, B.A., M.D. (Harvard), F.A.C.S., Professor of Obstetrics and Gynecology, University of Michigan Medical School. At first, I thought that all of the 200 various assorted surgeons who came out with me had also made the same choice. I wedged myself into the operating room, sitting between and on the feet of some long-suffering doctor behind me, and when my own feet were not in the air they were resting comfortably on the collar of the surgeon just below. But the air was good and if we all only remembered to breathe at the same time, we got along very well. Dr. Peterson is a man in the early sixties, and gives not only in looks but action the lie to the Osler myth. His operating room has dark tile flooring with dark green tile side walls, demonstrating how in all modern hospital constructions we are getting away from the glaring, glistening white walls for our operating rooms. It was interesting to see him put on his operating gloves. A sterile nurse held them wide open by their reversed cuffs, and with one rapid thrust, *presto!* the hand and fingers were smoothly encased without further effort.

The first operation was a cesarean section because of contracted pelvis. The patient was 41 years of age, and this her third pregnancy. The first, craniotomy with, of course, loss of child; the second, cesarean section with living child, now 4 years old. After the craniotomy confinement, the mother was invalided for a long time, and even was obliged to go on crutches for some months. After the cesarean section pregnancy she was up and about in 12 days! At the moment of operation labor had begun. If it is a primipara, Dr. Peterson first dilates the cervix uteri, especially if labor has not begun. This ensures better drainage, but in this case it was not necessary. Under ethylene anesthesia, the high incision was quickly but not hurriedly made. There is necessity of great care in making the incision in performing this operation for a patient who has had a previous section. The viable child was soon made to breathe and cry lustily by making swift friction on its back. The unruptured membranes and placenta were carefully and slowly removed. One, and only one, wipe was in use, and that to which Dr. Peterson is so partial, the long strip (6 in. by 3 yd.) of gauze. The doctor devoted some time to describing in detail its advantages and safety. The patient was given a hypodermic injection of pituitrin after delivery of the child. Here, strong emphasis was put on the risk of giving this drug before birth of the child, and attention was called to the almost immediate and visible contraction of the uterine muscle after its administration. In one case it had been given before the initial incision and the result was an asphyxiated child that had its life crushed out, so to speak, by the violently contracting walls of the great uterine muscle. So, let obstetricians think hard and



twice before they give pituitrin to hasten birth of the child. The walls of the contracting uterus being held firmly by the assistant gave little hemorrhage, and then tiers of No. 1 catgut sutures were quickly placed by the continuous method. The first tier was placed above the mucosa, and the last most accurately approximating the peritoneal surface of the uterus.

Asked by the writer if he ever used spinal anesthesia in cesarean section cases, Dr. Peterson replied that he liked spinal anesthesia but was prevented from using it because his clinic was a teaching clinic. If a patient is aware of all that is going on and his hearing is good, the surgeon must not talk.

Now the question arose: Should this woman be sterilized? She had requested it, as had also her husband. She has 2 living children. Dr. Peterson had consented to do this, after securing a signed (by both parties) written request and consent on their parts. These documents, in these sterilization cases, are very important and necessary. Cases have arisen where the husband and wife, although asking for sterilization, in subsequent years, when losing all their children in some manner, have come back and blamed the surgeon for doing an operation that incapacitated the mother for child-bearing.

In this case the tube was cut off flush with the uterus and the stump inverted.

The next patient came up for hysterectomy. I will quote in toto the history given, in order to show the method of presentation:

#### University of Michigan

#### University Hospital

#### Gynecology

#### History Sheet

Name: Clara Eno; Case No.: 180624; Date: 10/4/27.

#### Case summary:

Family history: No history of cancer in the family. Father living, at 62. Mother died at 48, cause unknown.

Past history essentially negative.

Gastro-intestinal: Has had some nausea and vomiting in the past four or five months. The vomitus is blood streaked. Remainder of the history is negative.

Cardiorespiratory: Negative. Neuromuscular: Negative. Age: 43. Weight: Best 134, present 133.

Catamenia: Onset at 11. Never regular, 6-8/28 type. She uses 8-9 napkins a day. Some pain during periods. Passes a few clots the first 2 or 3 days. Last menstrual period started September 22. No hot flashes.

Leukorrheal: Has had some leukorrhea since the age of 11 years. White, thick, has a foul odor, and is sometimes blood streaked. She has had some burning on urination and some frequency.

Marital history: Married at 20, for 23 years. Husband living and well. No pregnancies. No precautions used.

Chief complaint: Pain in the lower right quadrant. The pain first started in July, 4-5 years ago. Two years ago in this hospital the patient was told she had a fibroid tumor. About 3 years ago the patient first noticed a few drops of blood in between periods at times and this has become more profuse since. The pain has become worse in the past 2 years until now it is continuous, sharp, bearing down in character. The patient has had no associated gastrointestinal symptoms lately.

Physical examination: Head, eyes, ears, nose, mouth and glandular system negative.

Cardiorespiratory: There is some dullness in the right base posteriorly. The breath sounds are decreased. The voice sounds decreased. No râles heard. The heart is negative.

Abdomen: There is a tumor in the lower abdomen which rises above the symphysis to about one finger breadth below the umbilicus. It is multinodular, firm, movable; slightly tender on the right side. The extremities are negative.

Laboratory findings: Urine shows 1+ albumen. Sediment shows a few epithelial casts and a few pus cells and an occasional red blood cell. Blood, 62% hemoglobin; 2,760,000 red blood cells; 7800 white blood cells.

Pelvic examination: Perineum intact. Cervix small, points in axis of vagina. Bulging of posterior cul-de-sac by a tumor continuous with that in abdomen. It is hard, firm and slightly irregular.

Fibroid tumors can be treated by x-rays. Dr. Peterson thinks that if there is excessive hemorrhage, this may be the best way. In a case like the present one, an operation looks best. The cure is positive, the result is more "clean cut", and other pathology in the case can also be attended to and sometimes removed.

"We pay more attention now than we used to before operation to the percentage of hemoglobin. There were times when patients were operated upon for bleeding fibroids when the hemoglobin was as low as 20%. Now, with our modern methods of direct blood transfusion (Linderman), we get this up to 65% before we advise operation. In Ann Arbor we have no difficulty in getting blood. With our large student body we have more donors than we need. At the beginning of the term we often find 100 or more students offering themselves as donors, and going to be typed. Many are 'tickled pink' (not white)—words mine—to get \$25 twice a month for sale of their blood. It is a much easier, if not pleasanter, way to pay for board and tuition than other activities, such as boot blacking, doing chores, or waiting on the table; and even pays better than tutoring, in some cases."

This patient was etherized, drop method. Hypodermoclysis (saline) was continued all during the operation; the 2 long needles inserted at the nipple line into the loose cellular tissue between the axilla and the breast—not into the latter or even under it. This was done skillfully by a nurse. The usual supravaginal hysterectomy was performed, leaving the cervix. The question of treatment of the ovaries and tubes came up for discussion. Dr. Peterson said he was undecided as yet whether to leave them or remove them. Although normal, if left they soon atrophy. He turned to the visiting surgeons and asked those who advocated removal to hold up their hands. Only 5 or 6 hands were lifted. All others raised their hands when asked if they favored leaving the ovaries in the abdomen. A vast majority. The usual careful toilet of the cavity of the pelvis left a stump covered with smooth peritoneum. The wound was closed in the usual manner after exploring the appendix and the gall-bladder.

The impression made on the writer was that the operator was not only a good technician but a great teacher, driving home his points with the effective manner of John B. Murphy. Can one say more? Dr. Murphy had a great gift—an endowment given to few mortal men.

## SURVEY OF CRIPPLED CHILDREN.

(A letter from Joseph G. Buch, Chairman of the Crippled Children's Commission appointed by Governor Moore.)

Of special interest to the physicians of this state will be the census of crippled children, to be made by the New Jersey State Crippled Children's Commission during the week of November 14-19. The purpose of this census is to locate throughout the state all children, from birth to 18 years of age, suffering from crippling conditions, and also to discover their needs, what is being done for them through existing facilities, and the needs that still remain unmet. The Commission will be glad also to receive for transmission to other departments interested, the names and addresses of cripples over 18 years of age; and also of other handicapped individuals of any age who are blind, or nearly blind, deaf, feeble-minded, epileptic or suffering from any defect which limits them in their adjustment to life.

Since the welfare of crippled children has been the interest of various groups and individuals in New Jersey during the past several years, and since the physicians of the state have been very active in the medical and surgical care of these children, it is anticipated that the census will disclose the fact that the larger proportion of crippled children are already under medical care. There will, of course, be found throughout the state, a small number of the new cases which are constantly arising and which may not yet be under treatment. These usually comprise certain accident cases, unrecognized poliomyelitis and crippling defects apparent at birth. There are also those apparently hopeless cripples who are always on the alert for some new discovery.

The major need of crippled children as a class will probably be found to be their adjustment to life and economic self sufficiency, through education, vocational guidance and training, and suitable employment. In the experience of all physicians who have cared for cripples there have probably been many individuals whom they would like to have been able to help in their adjustment to life after medical skill had accomplished all that was possible.

The census of crippled children will be made through the school system, public, parochial and private, because it is believed that the teachers come most generally into contact with all the children of the state, both those attending school and, through the school children, others not attending. Census cards for recording detailed information on these children will be sent to all of the superintendents, supervising principals and teachers.

Since the physicians of the state are probably in touch with the majority of crippled children, their most effective way of helping the Commission in this census will be to send to the superintendents, supervising principals and teachers the names and addresses of all crippled children known to them. The physician should be of special help in finding the child of preschool age and also the older boy or girl who has left school for work. In surveys of crippled children it is usually true that the group under school age, especially infants, are the most difficult to find.

The New Jersey State Commission hopes that all the physicians of this state will find it possible to take a few minutes out of their busy lives to help in this work.

## VIOLATIONS OF THE MEDICAL PRACTICE ACT.

(Report from Dr. Charles B. Kelley, Secretary of the Board of Medical Examiners.)

The following is a list of our prosecutions since last report:

March, 1927, Joshua A. Brooksie, unlicensed chiropractor, of Trenton, N. J., paid a penalty for practicing medicine without a license.

March 31, 1927, Wm. P. Bohne, a druggist of West New York, pleaded guilty, in the First District Court of Jersey City, to a charge of practicing medicine without a license and paid a penalty.

April 5, 1927, Joseph Tulligowitz, a naturopath, of Newark, N. J., paid a penalty for practicing without a license.

April 5, 1927, Dominick Rubino, a druggist, of Bloomfield, N. J., paid a penalty for practicing medicine without a license.

April 11, 1927, Douglas C. Ramsey, an unlicensed physician, of New Providence, paid a penalty for practicing medicine without a license.

May 10, 1927, Harry La Bar, a druggist, of Jersey City, was convicted of practicing medicine without a license, in the First District Court of Jersey City, and paid the penalty.

May 10, 1927, Panayiotis Panoulas, connected with the Pankoka Co., Jersey City, was convicted of practicing medicine without a license and paid the penalty.

May 17, 1927, Evelyn Wienckiewicz, a naturopath, of Irvington, N. J., pleaded guilty, in the First District Court of Newark, to a charge of practicing medicine without a license and paid the penalty.

May 23, 1927, Frank Hirsch, unlicensed chiropractor, of Elizabeth, was found guilty of practicing medicine without a license. He appealed from the decision of the trial court, and the case is now pending before the Supreme Court.

June, 1927, Freda Korte, naturopath, of Atlantic City, N. J., pleaded guilty to a charge of practicing medicine without a license, in the District Court of Atlantic City, and paid the penalty.

May 25, 1927, Harold Bardsley, an unlicensed chiropractor, of Egg Harbor, pleaded guilty to a charge of practicing medicine without a license and paid the penalty.

May 31, 1927, T. Harry Cronk, an unlicensed physician, pleaded guilty to a charge of practicing medicine without a license and paid the penalty, in the E. Rutherford District Court.

June 6, 1927, Emma Gehret, licensed midwife, of Camden, N. J., pleaded guilty, in the District Court of Camden, to a charge of practicing medicine without a license and paid the penalty.

June 21, 1927, Moritz H. Fleischman, who was practicing in the Men's Medical Offices, 20 Central Ave., Newark, N. J., pleaded guilty to a charge of practicing medicine without a license and paid the penalty.

June, 1927, The Supreme Court affirmed the verdict of the First District Court of Newark, N. J., finding Borman F. Jones guilty of practicing medicine without a license. Jones refused to pay the penalty and was committed to jail.

June 29, 1927, Harry Galosh and Joseph Ilaria, druggists, of Singac, pleaded guilty to charges of practicing medicine without a license and paid their penalties in the Paterson District Court.

September 13, 1927, Alfonso De Murcio, druggist, of Bayonne, N. J., pleaded guilty to a charge



of practicing medicine without a license, in the First District Court of Jersey City, and paid the penalty.

September 20, 1927, John Heil, naturopath, of Irvington, N. J., pleaded guilty, in the First District Court in Newark, to a charge of practicing medicine without a license and paid the penalty.

September 20, 1927, Leon J. Nightingale, an unlicensed chiropractor, of Bloomfield, N. J., was found guilty of practicing medicine without a license.

September 28, 1927, John P. Fisher, "Rheumatism Specialist", of Clifton, N. J., pleaded guilty to practicing medicine without a license and paid the penalty in the Paterson District Court.

September 28, 1927, Paul B. Haebler, and Gustav Uez, naturopaths, of Union City, N. J., were arrested on charge of practicing medicine without a license, pleaded guilty and paid their penalties.

September 23, 1927, Luke Henderson, of Asbury Park, N. J., pleaded guilty to a charge of practicing medicine without a license and paid the penalty, in the Court of Common Pleas, Freehold, N. J.

### AUTOMOBILE INSURANCE FOR STATE SOCIETY MEMBERS

(A letter from Frank W. Pinneo, M.D., Chairman Committee on Life, Health, Accident and Automobile Insurance)

There is now offered to all members of the Medical Society of New Jersey Group Automobile Insurance which has been procured by the undersigned committee pursuant to action of the House of Delegates at the Annual Convention, June, 1927. It makes available to any member in good standing any kind of automobile insurance he may want—such as Liability, Property Damage, Fire, Theft, Transportation, Collision—on any automobile, in any desired amount. The premium is a level 20% off the regular rate as determined by reference to the standard insurance tables.

No specified percentage of members is required; therefore, any member may make individual application and secure the insurance at this discount. Immediate application may be made for insurance at a future date, as, e.g., date of expiration of insurance now carried.

The "Automobile Liability Policy" is the standard form with the Commonwealth Casualty Company of Philadelphia.

The other policy is the "Valued Fire, Theft and Transportation Form of the Monthly Reduction Automobile Policy" with the Standard Insurance Company of New York. This is the best form because the insurance carried is an absolute, stated, amount in case of total loss, and not subject to negotiation on adjustment. To provide for value on deterioration, the policy specifies a monthly reduction in insurance according to the following table:

Year of car	Over \$5000	\$5000-\$3500	\$3500-\$1500	\$1500-\$1000	Under \$1000
1927	....2%	2%	2½%	2½%	2½%
1926	....1½%	2%	2%	2½%	2½%
1925	....1½%	1½%	2%	2½%	2½%
1924	....1½%	1½%	1½%	2%	2%
1923	....1½%	1½%	1½%	2%	2%

In illustration of the above, a 1927 car insured for \$5000 would have a value after one month of \$4900; a 1925 car insured for \$3000 would

have a value after two months of \$2880; or a \$923 car insured for \$900 would have a value after four months of \$828.

In contrast to the advantages of this form, the *Non-valued* form would insure for only the replaceable value (in case of total loss) and hence be subject to disagreement.

The Group Health and Accident Insurance, procured after persistent effort and offered last March, is in force and has been taken by hundreds of applicants; indeed, about \$2000 has already been paid to claimants for illness or accident. An abstract of this policy was published in the State Society Journal April, 1927. A "reprint" of the article will be sent to anyone on request, as, also, application cards, for necessary data, for both or either kind of policy.

## In Lighter Vein

### Custom Made

Neighbor—"Yes, but I 'ad the last word wiv him. I sez to 'im, I sez, 'You're as ugly as if you'd been measured for it'."—Punch.

A market report says that calves are higher. We didn't suppose they were higher but just more visible.—American Lumberman (Chicago).

### Slight Obstacle

Wife (who has caught her husband squandering a penny on a fortune-telling machine)—"H'm! so you're to have a beautiful and charming wife, are you? Not while I'm alive, Horace—not while I'm alive!"—London Humorist.

### Tender Memory

Mrs. Shimmerpate, just back from Europe, said to Mrs. Beanbrough:

"I just couldn't bear looking at the ruins in Italy. The made me homesick for my husband."

"Homesick for your husband?"

"Uh huh. You know, Henry has fallen arches."

—Yougstown Telegram.

### Cutting Out the Prattle

"If no one talked of what he does not understand," said Hi Ho, the sage of Chinatown, "the silence would become unbearable."—Washington Star.

### Not Exactly Downy

Mrs. Flanagan—"Was your old man in comfortable circumstances when he died?"

Mrs. Murphy—"No, 'e was 'alf way under a train."—Western Christian Advocate.

### Dietary Experiment

Willie—"Ma, if the baby was to eat tadpoles, would it give him a bass voice like a frog?"

Mother—"Good gracious, no! They'd kill him."

Willie—"Well, they didn't!"—Goblin.

### Watch Your Step

He—"You must economize! Think of the future. If I were to die, where would you be?"

She—"I should be here all right. The question is—where would you be?"—Weekly Telegraph (Sheffield).

## Current Events

### REPORT OF WELFARE COMMITTEE MEETING

Trenton, October 9, 1927

Under instructions from the President of the Medical Society of New Jersey, Dr. Walt P. Conaway, a meeting of the newly appointed Welfare Committee called for Sunday, October 9, convened in the Princeton Room of the Stacy-Trent Hotel at 3 p. m.

Dr. J. B. Morrison, Recording Secretary of the State Society and Ex-Officio member of the Welfare Committee, called the meeting to order and asked for the selection of a temporary chairman.

Dr. Conaway, President of the Society, was requested to act in the capacity of temporary chairman.

Dr. Conaway: In accepting the temporary chairmanship, I want to thank you gentlemen for accepting appointment to membership on this committee and at the same time to state that I will endeavor to aid you in your work in so far as I can in accordance with the standard established by my predecessor in this office, Dr. Green. There have been a few changes made in the personnel of this committee, and to the new members who are appearing here for the first time today, I particularly express the hope that they will work earnestly and enthusiastically in conjunction with the men who have carried the burden of this labor for several years.

The first business of this meeting will be for you to elect your permanent chairman.

Upon motion of Dr. Schauffler, seconded by several members, Dr. Andrew F. McBride was unanimously re-elected Chairman of the Welfare Committee.

Dr. McBride: It is unnecessary for me to tell you that I deeply appreciate this expression of your confidence in me and I am not even going to say that I wish you had elected someone else, because, while I would gladly enough surrender the office and its responsibilities, I would not convey the impression that I wished to shirk any duty you may assign to me. I do want again to thank the older members of this committee for their continued interest and hearty support in the work of this most important branch of the state society. In the beginning of our work, and until our aims were at least partly understood, we were sometimes accused of ulterior motives and the intention to suppress all would-be practitioners of medicine so that regular physicians might monopolize practice of the healing art, but I believe the public is now better informed and begins to appreciate the truth regarding our motives. If the committee continues to work along the lines it has been following, the public will not long remain in ignorance of our aims and objects and will certainly accord us a proper measure of support.

It is a pleasure to greet the new appointees to this committee and to assure them that those of us who have served before will welcome any new ideas and suggestions they may bring to us.

The Secretary will now call the roll.

The following named members responded to the roll call: Drs. Bloom, Clayton, A. H. Coleman, J. G. Coleman, Conaway, Costill, Davis, Ely, Ganley, John F. Hagerty, D. Leo Haggerty, Hunter, Lathrope, McBride, McMahon, Morrison, Ryan, Schauffler, Schureman and Sherman: excuses were

received from Drs. Donohoe, Guion, Lippincott, Morrow and Remer.

Dr. Morrison: Mr. Chairman, before proceeding to the regular order of business, I would like to introduce Mr. Buch, who was recently appointed by the Governor as Chairman of a Special Commission to make a survey of the crippled children in the state of New Jersey.

Mr. Buch: Gentlemen, I wish to call your attention to the fact that a law was enacted at the last General Assembly creating a special commission, of which I have been made chairman, to make a statewide survey as to the number and condition of crippled children in this state, and I would most heartily appreciate your support in this work. In fact, such a survey cannot be successfully made without thorough coöperation of the medical men of the state. We contemplate sending out a questionnaire, and as we desire to conduct the work in a perfectly ethical manner, I have already submitted that questionnaire to Dr. Morrison for the approval of the New Jersey Medical Society.

I would like to say on behalf of the state organization of Elks, whose members have been active in promoting this work, that they thoroughly appreciate the aid heretofore received from members of the medical profession and realize that had it not been for such medical support they could never have accomplished such good work as has been already performed in the interest of crippled children. With coöperation of the physicians we believe we shall be able to guarantee to every crippled child in this state a proper examination and such medical treatment, hospitalization and convalescent provisions as may be found necessary.

It may happen that some new legislation will be necessary to effect all of our objects and, in that connection, if you will appoint a small committee to confer with our commission we will be better able to consider any proposed legislation and to work intelligently for its enactment.

Dr. McBride: We appreciate your coming here, Mr. Buch, and I think I can assure you that you will receive full coöperation from the physicians of this state in any proceedings looking to the welfare of our crippled children. Specific action upon your suggestions will be taken by the committee in the routine course of its work.

The Secretary will now report upon his activities since the last meeting and possibly outline some of our work for the coming season.

#### Secretary's Report to the Welfare Committee

October 9, 1927

Gentlemen:

As the chief object of this meeting is to determine a tentative program of work for the new fiscal year, and as the present Welfare Committee contains several new members, it may be fitting for the Secretary to report on the state of unfinished business and to present for your consideration some new matters growing out of the recent Annual Convention of the State Society.

(1) County Societies. Presentation of the periodic health examination question to county societies met with considerable success last year and we contemplate continuance of that propaganda whenever opportunity affords. Special effort should perhaps be directed this winter to preparation of a new film to illustrate the technic of such examinations—partly for the purpose of improving upon the old one, partly with a view to securing the effect that comes from repetition with variations—and we hope to find the necessary time,



hospital facilities and professional assistance for getting at this work in the near future.

The most recent happening worthy of record, in connection with health examination developments, is described in a letter received October 7 from Mrs. Caroline R. Shreve, Chairman of the Atlantic County Committee on Red Cross Nursing Activities. Mrs. Shreve reports that, following up a plan started 2 years ago, and with cooperation of the Atlantic County Medical Society, provision was made for conducting a health examination booth at the County Agricultural Fair, held at Egg Harbor City, September 14-17, 1927. The Fair Association gave the use of a building 30 x 80 ft., partitioned into rooms and supplied with running water in accordance with plans provided by the medical society's committee. Dr. Clyde M. Fish, of Pleasantville, superintended the work and was aided by 8 physicians (serving at different times), 5 nurses and a stenographer. During the Fair period of 4 days, 63 persons (38 women and 25 men) were examined and about 25 applicants were not registered because of a shortage of examiners on duty. The 63 examined came from 20 different towns. There were 3 reexaminations; persons who had been first examined last year. Among the defects recorded, 19 referred to the lungs, 32 to heart conditions, and 31 to the throat. In promotion of this work, the Metropolitan Life Insurance Company distributed literature through their agents, and permitted exhibition of their film—"Fighting for Dear Life" during the week preceding the Fair. The paragraph in Mrs. Shreve's letter—"Already the doctors are planning for twice as much space, more examiners, and better equipment for next year"—suggests to us the possibility of inducing other county fair organizations to take up this work and feature it next year. We would suggest attempting this through the county medical societies.

A special matter for adoption by the county organizations this year will be the Disaster Medical Relief scheme promulgated by the American Medical Association and the American Red Cross. The state society endorsed this proposition and, if it meets with your approval, we will draft a specific plan for submission to the county units. That will probably be the quickest way to secure action and provide for uniform organization.

(2) Woman's Auxiliaries. As you are aware, 14 of our county societies have already established auxiliaries, 3 have formally authorized such organization, and 4 remain to be convinced of the wisdom of such action; the first 3 will doubtless soon take the next step toward organization, and we propose to keep hammering at the other 4 in hope of securing a complete state organization during the year.

Under date of June 27, we addressed a letter to the presidents and secretaries of all auxiliaries regarding the public educational program of the state society, inquiring particularly what opportunities their members could procure for addressing women's clubs, and to what extent they might be able to advantageously distribute copies of the "Primer" published by this committee last Spring. The vacation period having interfered with a satisfactory response to that letter, we issued another under date of October 5 which carried, in addition, detailed information about the lectures we are prepared to book for such clubs. From the responses that have come to hand it seems probable that we can make a goodly number of engagements for the winter, but we would respectfully suggest that members of the Welfare Committee

can materially aid in promotion of this educational work by stimulating the officers of their respective county societies and auxiliaries to engage actively in the effort to secure bookings for our representative.

Regarding the "Primer", we would suggest that authorization be given to print and distribute another edition of 5000 (cost about \$80) provided there shall develop in the next 2 months a sufficient demand to justify such expenditure; the first edition of 5000 was exhausted long ago and we have at the present time requests for several hundred more copies.

We anticipate the necessity for close contact with and some supervision of the auxiliaries during the next year or two, so that their energies may be guided into fruitful fields. In confirmation of this, we would quote from a letter received only yesterday from an officer of one of the auxiliaries: "The local auxiliary did not meet this month. This omission was due to the suggestion of the doctors who felt there was no pressing business, and who advised deferment". Evidently there is work to be done among our own members, as well as with the auxiliaries.

(3) Public Educational Work. In this connection, we would report that, in accordance with authorization given at the Annual Meeting, we have engaged an assistant to carry on the club lecture work referred to above. Mrs. E. C. Taneyhill, of New York, who has had considerable experience in medical literary work and who is an accomplished public speaker—having been at one time very successfully engaged in lecturing to women's clubs on "Current Events"—has been appointed to this position. Conferring with her in July, we learned that she expected to spend a portion of the summer in Michigan, and taking advantage of that proximity to Chicago, requested her to call upon the Educational Secretary of the Illinois Medical Society, with whose work many of you are familiar, and later arranged for a conference out of which we hoped she might get some help toward formulating plans for us. Miss McArthur and the officials of the Illinois Society were very courteous and supplied us with much information concerning their own work. After Mrs. Taneyhill's return from the West we engaged her services and had her spend the month of September in our own office studying the mass of material collected during the past 3 years and preparing a series of talks to be submitted for approval upon our own return from vacation—the first topics assigned to her being: "Periodic Health Examinations", "Abolition of Diphtheria", and "Prevention of Infectious Diseases". Other subjects will be worked up as rapidly as possible. On return to duty we were pleased to learn that the office secretary had already booked her first appearance and that, through the efforts of a member of this committee, Dr. Bloom, she was to address the Business Woman's Club of Phillipsburg on October 3. Since then the President of the Union County Auxiliary has offered bookings for October 13 and November 1, the Gloucester County Society Auxiliary has requested her presence at their meeting on October 20, and the President of the Cumberland County Auxiliary has secured an engagement with the Civic Club of Bridgeton for February 27. Thus, that work is auspiciously inaugurated.

In the matter of radio broadcasting we have a new proposition to submit. You will remember that during the winter of 1925-26 we broadcast a series of "Ten Minute Talks on Keeping Well", which were further widely disseminated by aid of

many newspapers throughout the state. In the winter of 1926-27 we were unable to carry out the contemplated program because of press of other work. During the past week Radio Station WHAR has requested that we resume a place upon their program and offers us the hour 7.45 p. m. every Friday beginning with November 4. The Director of that station says they have had a number of requests for resumption of these talks and she believes the people appreciated the authoritative character of medical communications from the State Medical Society.

The offer presented by WHAR is extremely liberal and we look upon this as an opportunity that should be accepted promptly and developed with care. Under recently established government control aërial conflict of stations has been much abridged; WPG no longer "drowns out" WHAR, because they are not "on the air" at the same time. The Atlantic County Medical Society will, I presume, continue its weekly program over WPG.

We assumed responsibility for accepting the offer made by WHAR, believing that to be in accord with previous instructions, and would like to suggest construction of a broad program that will include the preparation and broadcasting of talks by as many as possible of our members. We would like every member of this committee, for instance, to volunteer to prepare and deliver at least one such message to the public. We will suggest topics to those who have no special subject in mind. For those who cannot conveniently come to Atlantic City to deliver the message into the microphone, we will undertake to do the speaking for them, if they will supply us with typed copy of their message. We would much prefer to have you present in person, and would throw out the hint for whatever it may be worth, that as these talks are to be given on Friday evening, you will be supplied with a legitimate excuse to spend a week-end at the seashore.

(4) Antidiphtheria Campaign. The statewide movement for abolition of this disease is making satisfactory progress. Out of the conference called by our ex-president, Dr. Green, and a wise suggestion made by Dr. Morrison, has grown a larger organization sponsored by the Governor of the State and containing representatives of all societies and special clubs that are concerned with public welfare. Complete report of progress to date will be found in the October Journal. Under the leadership of Mr. Osborne, Health Officer of East Orange, a definite program is being worked out, subcommittees have been appointed, and considerable activity may be expected.

(5) Tristate Medical Conference. The Autumn session of this body will be held in Atlantic City, under the Chairmanship of President Conaway, on October 22, and the special topic for discussion will be "State Control of Private Hospitals"—a subject of growing interest in all 3 states. If any member of this body desires to take part in that discussion we will gladly place him on the program.

(6) Regulation of Physicians By Law. At the meeting of the Welfare Committee, held February 13, 1927, Dr. Morrison called attention to a reprint from the Journal of the American Medical Association dealing with the question of a "basic science" provision for the licensing of medical practitioners and asked that it be studied as a possible solution of New Jersey's difficulties. The Editor had already begun, with your approval, a series of articles in our own Journal, under the title, "Regulation of Physicians By Law", wherein he utilized the well-known Kelly brochure as a basis for con-

sideration of some features of medical control legislation, with special reference to New Jersey problems. The ninth monthly article of this series appears in the October Journal and it has been the intention to conclude the series of ten with publication of the Woodward proposed basic science law in the November issue. It is possible to extend this series of articles indefinitely, if you approve those that have been published, by exploring into the development, successes and failures of state legislation designed to control medical licensure. You may wish to take active steps now toward the procurement of a basic science provision in our state law; you may feel that the time is not propitious for such a move; you may wish a continuance of these special articles for their educational value within professional ranks and looking toward action at some future time; you may deem it wise to stop these articles and let the whole matter rest for a time. We would like you to consider these questions and give us instructions.

(7) Annual Registration of Physicians. At the Annual Meeting of the State Medical Society, the Board of Medical Examiners presented a report which contained a strong recommendation for submitting to the General Assembly of New Jersey an amendment to the Medical Practice Act which shall provide for the annual registration of licensed physicians. The sentiment of the House of Delegates was apparently strongly in favor of such action, but the subject was finally referred to the Welfare Committee for further consideration and such disposition as this committee might see fit to make. The report referred to was published in full in the Official Transactions issued as a supplement to the August Journal and you have all had the opportunity to read it.

(8) Reciprocity in Medical Licensure. If the Medical Practice Act is to be submitted to any amendments at the coming session of the General Assembly, we would respectfully recall your attention to that portion of our report to the Welfare Committee under date of October 24, 1926, in which we pointed out a defect in the present law. As stated at that time, the medical profession probably thought it had properly provided for extension of reciprocity courtesies to those physicians of other states whose graduation antedated passage of the law, but the Board of Examiners has ruled that the law excludes all such physicians unless they take the full examination imposed upon the most recent medical graduate, basing the ruling upon an opinion of the state's Attorney-General. We believe that the present Board of Examiners concurs in the opinion that the obvious intent of the law has been perverted by its peculiar phraseology, and that an amendment is desirable. We happened to discover this situation by inquiring as to the possibility of our own registration, believing that some of the interests of the State Medical Society might be better safeguarded by having us recorded as a member. During the past year, however, 2 other instances have come under our observation in which men of unquestioned ability and of high standing in the medical profession of their states have been shut out of New Jersey. We feel very strongly that if the Attorney-General is correct in his opinion (a matter which we seriously question) the law should be amended to provide for such cases in accord with the original object and undoubted present intent of the profession of this state, but, lest some persons may think that we have a personal interest in this question, we desire to announce now that in the event of passage of such an amend-



ment your Secretary will neither request nor accept reciprocity registration under the new law. Lack of membership in the state society has not yet, as we had reason to fear it would, interfered with our work, and we are willing to take a chance on the future.

(9) Subcommittees. There are several subjects considered by your predecessors that are still in the hands of subcommittees and which you may wish to revive. The special committees on "Expert Testimony", "Juvenile Delinquency", and "Revision of the Requirements for Licensing Automobile Drivers", are the chief of these. Dr. Runyon's resignation because of poor health makes it necessary to reconstruct the committee on Expert Testimony. The last General Assembly provided for a special commission to investigate the questions of Juvenile Delinquency and Probation, and it may be well for our subcommittee to be continued and be instructed to keep in touch with the commission recently appointed by Governor Moore. The Chairman of the committee to confer with Commissioner Dill will doubtless report their recommendations today.

Respectfully submitted by,

Henry O. Reik, M.D.,  
Secretary.

Dr. McBride: You have heard this very interesting report of the Secretary, with its several recommendations, what action do you wish to take?

Dr. Costill: It is perhaps impossible to act upon all of these recommendations at once, but taking the report as a whole, I move that it be received and its suggestions followed up as rapidly as we can deal with them.

Dr. Hunter: In seconding that motion, I would like to ask if a duplicate copy of the Secretary's report might be sent to each member of the committee for study and guidance as to future action.

The motion was unanimously adopted and the Secretary instructed to supply members with copies of his report.

Dr. Schaufler: There are a number of points in the Secretary's report that deal with a continuation of work that he has been previously authorized to conduct, and I think we might at this time authorize his continuance of those things. I would so move.

The motion was seconded and adopted.

Dr. McBride: Will Dr. Sherman give us a report from his committee?

Dr. Sherman: Our committee has been in touch with Commissioner Dill and at the last conference, in the latter part of June, he signified very definitely that he desired to regulate the examination of applicants for automobile drivers' licenses, particularly new applicants, on the basis of certificates signed by any physician to whom the applicant may have presented himself, and he has asked our committee to present a blank form embodying the necessary points of examination. The committee has been working upon this plan and expects to have it completed within a few days.

Dr. Costill: I move that we accept the report and continue the committee, with the request that they report proceedings as soon as possible.

This motion was seconded and adopted.

Dr. McBride: We will ask the Secretary to communicate with the Chairman of the Committee on Juvenile Delinquency, and request that his committee shall take up its work actively this year and also get in touch with the special commission referred to in the Secretary's report.

Dr. Sherman: It occurred to me while Dr. Reik was reading his report that perhaps it would be

worth while to have his valuable series of special articles on the Regulation of Physicians By Law put together for publication in pamphlet form and thus distributed to the profession. I offer that as a suggestion, and I think it would be well to request Dr. Reik to continue this series of articles as far as he deems it advisable.

Dr. Lathrope: I think everyone of us feels it is important to continue this series of special articles. Many of our members throughout the state have given little consideration to the questions discussed in these articles but they do now regularly read the Journal and we can scarcely over-estimate the power of the Journal as an instrument for directing the attention of our members to these problems.

Dr. Morrison: I believe it was at my suggestion that the publication of this series was originally brought about. I brought home with me from Chicago several copies of the Kelly Article and the Welfare Committee later authorized the purchase and distribution of reprints of that article. Later, we took under consideration the proposed basic science law. Today, I am not ready to advocate immediate steps toward the adoption of that provision in New Jersey. The law has been adopted in several states but, in consequence of the fact that in some of those states the profession has no voice in the appointment of medical examiners, there is considerable doubt as to the value of the law. When the matter was first brought to your attention and I advocated consideration of this law there were two other things that I hoped would happen shortly; one was the establishment of premedical courses in some of the educational institutions in this state, and the other was the establishment of a Board of Regents for New Jersey similar to that existing in New York. Neither of those things has come to pass and until something of the kind can be brought about, and until we can observe the effect of the basic science law in some of the other states I doubt the wisdom of asking for passage of this law.

Dr. Sherman: Is there not a premedical course offered now at Princeton?

Dr. Schaufler: Some premedical instruction is given but there is not a definite premedical course and the University authorities are not at present inclined to take definite steps in that direction.

Dr. McBride: Dr. Kelley, representing the State Board of Medical Examiners, is with us and may wish to say something of the Board's plan.

Dr. Kelley: I am rather glad that Dr. Morrison has lost some of his enthusiasm for the basic science law. At the last meeting of the Federation of State Boards this matter was fully discussed and I have given considerable thought to the problem. The law has been enacted in 5 states but it has many weak points and there is a wide difference of opinion concerning what constitutes the basic sciences as applied to medicine. I discussed the question with Dr. Woodward and he admitted that his model law might not be applicable to states like New Jersey that now have composite boards.

Regarding the reciprocity clause that Dr. Reik mentioned, the Board did not base its ruling solely upon the opinion of the present Attorney-General but upon the fact that several attorneys have so ruled and the courts have decided that extension of reciprocity in such cases is not possible under the present law. The Board would very much like to have some provision made giving them authority to meet emergencies and a certain class of conditions that arise. I think the Board would

not have any objection to having the law changed so that we might admit desirable men on some basis of reciprocity.

Now, as to the question of annual registration, that is a matter dear to my heart. I was not an advocate of this plan in the beginning, and not until I had studied it and found the great need for it. The House of Delegates of the State Medical Society acted upon this matter at the last convention and gave the proposition its approval. They referred the question to the Welfare Committee for action and I hope this committee will see its way clear to working with us for the enactment of this law; we need it for several good reasons which have already been set forth. Two very important reasons are that it would make it possible to get an accurate registration of all the legitimate practitioners in the state, which would in turn direct attention to those who are illegally practicing, and it would provide funds for prosecuting those who are violating the medical laws.

Dr. D. L. Haggerty: Mr. Chairman, I recall the fact that we all very much enjoyed the "get-together dinner" tendered to us in June by the Board of Medical Examiners and I would suggest that the Secretary be instructed to convey by letter to the Board an expression of our appreciation of their courtesy. Then, I would move that a committee be appointed to arrange for a dinner by this body to the Board of Examiners, as a means of keeping up this feeling of fellowship.

These motions were duly seconded and adopted.

Dr. McBride: Before we get away from the question of legislation, I want to emphasize what our State Society President has said about the services of this committee and to call your attention to the importance of individually keeping in contact with members of the Legislature from your respective districts. I have on several occasions expressed the opinion that the proper way to get results from the legislature is not by going down to the Assembly en masse and buttonholing members on the floor, but by working with members in their home districts and through the members of the county medical societies. I repeat this in order to particularly ask the new members of the committee to bear this in mind and be prepared to act whenever we call upon you to do so.

Dr. Hunter: May I offer a suggestion in line with the remarks of the Chairman? Last year we started a plan in Gloucester County of inviting members of the Legislature to attend one of the dinners of the county medical society and to participate in our discussion of medical legislation.

Dr. McBride: Perhaps Dr. Morrison will now present the questionnaire to which Mr. Buch referred in his discussion of the crippled children problem.

Dr. Morrison read the questionnaire which Mr. Buch will send to all physicians in the state.

Dr. Hunter: Would it be in order to endorse this movement?

Dr. Morrison: That is all that is requested of us at present.

Dr. Costill: It seems to me we should go further than a perfunctory endorsement; that we might in addition commend this movement to the county societies and ask them to induce individual physicians to cooperate in their several communities. It is desirable that every child in the state known to members of the profession as being disabled should be reported to this commission. We might request each member of the Welfare Committee to report this movement to his own county society and see to it that they take steps for cooperation with the commission. I have known Mr. Buch for many years and I know how enthusi-

astically he will work on this proposition and that he is entitled to the full support of the profession.

Dr. J. G. Coleman: I would move that the committee endorse the plan set forth by Mr. Buch, on behalf of his commission, whose object is to ascertain the name and location of every crippled child in the state of New Jersey, that we offer the cooperation of this body as representing the Medical Society of New Jersey, and that through the members of this committee we seek to secure the active cooperation of all the members of the county medical societies.

This motion was seconded by Dr. Costill and unanimously adopted.

Dr. Reik: Mr. Chairman, before we adjourn I should like to introduce a communication received from a member of the state society which contains a valuable suggestion for use in connection with the periodic health examination campaign. The letter is from Dr. I. W. Knight, and reads as follows:

September 8, 1927

Dear Doctor:

In connection with the campaign to lead the people to their family physician for health examinations and also to induce the physician to give such examinations, I have wondered if a neat notice in the physician's waiting room would not help. The wording of such a notice as I have in mind would be:

#### HEALTH EXAMINATIONS

BY APPOINTMENT ONLY

My thoughts regarding the display of such a notice are:

(1) Waiting patients would have their attention directed to the subject of health examinations.

(2) Such notice would mean that the physician makes such examinations and so answers the question of where such examinations may be secured. One who has seen such a notice would tell others of it.

(3) Such a notice infers that, since such examinations are made only by appointment, some time is required for the examination and the fee would be different from that asked for an ordinary office consultation.

(4) Such a notice could be posted by a physician who at the time knows nothing of the examination technic, as he could, when applicants appear, fix the time of appointment far enough in the future to afford him time to familiarize himself with it.

(5) The physician could plead that the press of other duties makes it necessary to confine such examinations to those months of the year when his ordinary practice is less exacting. This should appeal to the general practitioner who has his slow seasons.

I do not think it would be unduly expensive to have such cards printed and sent to each member of the state society, by enclosing them in a number of the Journal.

Very truly yours,

(Signed)

I. W. Knight, M.D.  
District Health Officer.

It seems to me that Dr. Knight's suggestion to hang such a card in physician's offices is a valuable one and that it helps to solve one of the problems that the American Medical Association and a number of the state societies have been working upon for the past 2 years. It is perfectly ethical and, I believe, should have the endorsement of this committee. Whether or not the committee shall accept the suggestion to supply these



cards to members of the state society is a question of economics to be considered separately.

Dr. McBride: This letter and these matters in the Secretary's report which call for action may be thoughtfully considered by members when they receive the official record of this meeting, and we will request that every member shall express his views upon the several subjects promptly in a letter to either the Chairman or the Secretary.

The meeting then adjourned.

Henry O. Reik, M.D.,

Secretary.

## The Woman's Auxiliary

With this issue of the Journal we are setting aside space for a new "Department"—to bear the caption at the head of this column—which will be devoted to news items and matters of interest to the women members of physicians' families, especially to those who have banded themselves together in the formation of associations auxiliary to the state and county medical societies. Just as one of our departments contains monthly the reports of all county medical societies that held meetings during the preceding month, so do we contemplate regular publication of the periodic gatherings of the county society auxiliaries. The secretary of each auxiliary has been requested to send in reports of proceedings promptly after each meeting, delivering them directly to the Journal Editor or to Mrs. George A. Rogers (No. 1 Wallace Street, Newark), who was appointed Chairman of the Publicity Committee of the State Society Auxiliary and who has been invited to collect and contribute material for this portion of our Journal. In addition to such routine reports of proceedings, we hope to find other matters of sufficient interest to justify publication in this special section of the Journal, and especially to outline work for the auxiliaries and to direct attention to work being done in other states. We will welcome short papers from members of any of the county auxiliaries; especially papers presenting topics for consideration by and action on the part of such auxiliary bodies. If you have a good idea, worthy of adaptation by other groups of fellow workers, let us pass it along, using the Journal as a medium of communication.

That all may become familiar with what has thus far been done toward organizing the auxiliary movement in New Jersey, let us direct your attention to the series of steps taken, as recorded in the Journals of March, pages 187-191; April, pages 265-266; May, pages 326-327; June, 397; August, Supplement, pages 53-55. The last mentioned reference will give you the minutes of the organization meeting of the State Society Auxiliary, together with the Constitution and By-Laws as adopted, and the names of officers elected.

As we have not hitherto published the lists of officers chosen by the several county auxiliaries, and as it may be helpful to members to know who are the people most actively engaged in carrying on this work at present, we shall give here the entire list of officers of the state and the 14 county auxiliaries:

### Officers and Executive Board of the Woman's Auxiliary of the New Jersey State Medical Society

Officers: President, Mrs. A. Haines Lippincott, 406 Cooper Street, Camden; President-Elect,

Mrs. George L. Orton, 98 Elm Avenue, Rahway; First Vice-President, Mrs. Walt P. Conaway, 1723 Pacific Avenue, Atlantic City; Second Vice-President, Mrs. Ephraim R. Mulford, Burlington; Third Vice-President, Mrs. Frank Devlin, 617 Broadway, Newark; Recording Secretary, Mrs. A. Longstreet Stillwell, Somerville; Treasurer, Mrs. James Hunter, Jr., Westville.

Directors: Mrs. Frank C. McCormack, Englewood; Mrs. Reeve L. Ballinger, 659 Kearny Avenue, Arlington; Mrs. Richard M. A. Davis, Salem; Mrs. Charles M. Gray, Vineland; Mrs. Theodore Teimer, 17 Hillside Avenue, Newark; Mrs. William G. Herrman, Asbury Park.

Chairmen of Committees: Publicity and Medical Journal News, Mrs. George A. Rogers, 1 Wallace Street, Newark; Organization, Mrs. Samuel Barbash, 1902 Pacific Avenue, Atlantic City; Program, Mrs. Roscius I. Downs, Riverside; Entertainment, Mrs. John Nevin, 630 Bergen Avenue, Jersey City; Public Health (including Hygeia), Mrs. Daniel L. Haggerty, 227 N. Warren Street, Trenton; Registration and Credentials, Mrs. George F. Dandois, Wildwood.

### Officers of Auxiliaries to County Medical Societies

#### Atlantic County

President, Mrs. Charles B. Kaighn, Atlantic City; First Vice-President, Mrs. William Martin, Atlantic City; Second Vice-President, Mrs. Joseph Poland, Atlantic City; Recording Secretary, Mrs. E. H. Harvey, Atlantic City; Corresponding Secretary, Mrs. Edward Guion, Atlantic City; Treasurer, Mrs. Samuel Winn, Atlantic City.

#### Bergen County

President, Mrs. Edward W. Clarke, West Englewood; First Vice-President, Mrs. Frank C. McCormack, Englewood; Second Vice-President, Mrs. Valentine Ruch, Englewood; Secretary, Mrs. Charles Littwin, Palisade; Treasurer, Mrs. W. S. Kilts, Bogata.

#### Burlington County

President, Mrs. Daniel Remer, Mt. Holly; First Vice-President, Mrs. Roscius Downs, Riverside; Second Vice-President, Mrs. Benjamin K. Brick, Marlton; Secretary, Dr. Elizabeth Love, Moorestown; Treasurer, Mrs. Harry L. Rogers, Riverton.

#### Camden County

President, Mrs. Edward C. Pechin, Haddonfield; First Vice-President, Mrs. Joseph E. Roberts, Camden; Second Vice-President, Mrs. Orris Saunders, Camden; Third Vice-President, Mrs. Alfred Cramer, Camden; Recording Secretary, Mrs. Harry Bushey, Camden; Corresponding Secretary, Mrs. I. Grafton Sieber, Audubon; Treasurer, Mrs. R. E. Schall, Camden.

#### Cape May County

President, Mrs. George F. Dandois, Wildwood; First Vice-President, Mrs. Frank R. Hughes, Cape May; Second Vice-President, Mrs. Herschel Pettit, Ocean City; Recording Secretary, Mrs. A. C. Crowe, Ocean City; Corresponding Secretary, Mrs. M. V. Smith, Ocean City; Treasurer, Mrs. Oscar Ziegler, Wildwood.

#### Cumberland County

President, Mrs. M. F. Sewall, Bridgeton; First Vice-President, Mrs. Charles W. Wilson, Vineland; Second Vice-President, Mrs. L. J. Kauffman, Millville; Recording Secretary, Mrs. Sherman Garrison, Cedarville; Treasurer, Mrs. E. C. Lyon, Bridgeton.

### Essex County

President, Mrs. George Rogers, Newark; First Vice-President, Mrs. Victor Parsonnet, Newark; Second Vice-President, Mrs. Frank Devlin, Newark; Recording Secretary, Mrs. Theodore Teimer, Newark; Corresponding Secretary, Mrs. Philip G. Hood, Newark; Financial Secretary, Mrs. John Huberman, Newark.

### Gloucester County

President, Mrs. James Hunter Jr., Westville; First Vice-President, Mrs. Luther M. Halsey, Williamstown; Second Vice-President, Mrs. Chester I. Ulmer, Gibbstown; Secretary, Mrs. Harry L. Sickel, Woodbury; Treasurer, Mrs. David Brewer, Woodbury.

### Hudson County

President, Mrs. William Freile, Jersey City; Secretary, Mrs. Daniel T. Winter Jr., Jersey City.

### Mercer County

President, Mrs. F. G. Scammell, Trenton; First Vice-President, Mrs. M. W. Reddan, Trenton; Second Vice-President, Mrs. D. Leo Haggerty, Trenton; Secretary, Mrs. J. J. O'Rourke, Trenton; Treasurer, Mrs. J. B. Sill, Trenton.

### Monmouth County

President, Mrs. W. G. Herrman, Asbury Park; First Vice-President, Mrs. C. M. Trippe, Asbury Park; Second Vice-President, Mrs. C. D. Prout, Asbury Park; Secretary, Mrs. R. E. Watkins, Belmar; Treasurer, Mrs. Henry B. Dorr, Ocean Grove.

### Salem County

President, Mrs. Charles Fleming, Pennsgrove; First Vice-President, Mrs. John M. Summerill, Pennsgrove; Second Vice-President, Mrs. William H. James, Pennsville; Secretary, Mrs. R. M. A. Davis, Salem; Treasurer, Mrs. F. L. Perry, Salem.

### Somerset County

President, Mrs. D. S. Renner, Skillman; First Vice-President, Mrs. David F. Weeks, Skillman; Second Vice-President, Mrs. E. G. Brittain, Bound Brook; Secretary, Mrs. Lancelot Ely, Somerville; Corresponding Secretary, Mrs. F. L. Field, Far Hills; Treasurer, Mrs. J. H. Cooper, East Millstone.

### Union County

President, Mrs. George L. Orton, Rahway; First Vice-President, Mrs. Fred A. Kinch, Westfield; Second Vice-President, Mrs. P. DuBois Bunting, Elizabeth; Secretary, Mrs. H. V. Hubbard, Plainfield; Treasurer, Mrs. Dennis McIlhinney, Elizabeth.

Doubtless, a number of the county auxiliaries held meetings during October, coincident with the meetings of their respective medical societies, and it is possible some changes were then made in this list of officials, but we have knowledge of only one incident of the kind. At a meeting of the Union County Auxiliary, Mrs. George L. Orton, of Rahway, declined reelection to the presidency because she had been made President-Elect of the State Auxiliary, and Mrs. Frederick A. Kinch, of Westfield, was elected to succeed her. The other officers chosen at the time were: First Vice-President, Mrs. P. Du Bois Bunting, of Elizabeth; Second Vice-President, Mrs. Norman W. Currie, of Plainfield; Secretary, Mrs. H. V. Hubbard, of Plainfield; Treasurer, Mrs. D. R. McIlhinney, of Elizabeth. Of the 44 enrolled members, 21 were in attendance at the meeting on October 13.

The Somerset County Auxiliary met at the Raritan Valley Country Club on Thursday, October 13, joining the members of the county society at dinner. President Conaway, Secretary Morrison and the Editor of the Journal were present as guests and each addressed the joint meeting. As has been already noted in some other counties since organization of the auxiliaries, this proved to be the largest meeting—in point of attendance—that the medical society has held for years. The first effect of the auxiliaries everywhere has been to bring out a large number of the men; if the society and auxiliary meetings are held at the same time and place, the women see to it that their husbands attend.

The Gloucester County Auxiliary held a meeting at the Woodbury County Club, October 20, and had as guest on that occasion, Mrs. A. Haines Lippincott, President of the State Society Auxiliary; Mrs. Hunsberger, President of the Auxiliary to the Pennsylvania Medical Society; and Mrs. E. C. Taneyhill, who has recently been engaged by the New Jersey State Medical Society to aid in presenting its educational program to women's clubs throughout the state.

During September and October the medical societies of Middlesex, Ocean, Passaic and Warren counties authorized their officers to arrange for the organization of auxiliaries, and the Executive Secretary of the State Society will take up this work as soon as engagements can be satisfactorily made.

## County Society Reports

### ATLANTIC COUNTY

Harold S. Davidson, M. D., Reporter.

Regular monthly meeting of the Atlantic County Medical Society was called to order by the President, Dr. Charles B. Kaighn, on Friday evening, October 14, 1927, at 8.30 o'clock. Minutes of the previous meeting were read and approved.

The Society extended its congratulations to Dr. Walt P. Conaway on his election to the presidency of the New Jersey State Medical Society.

During the summer recess, the Board of Governors appointed Dr. D. B. Allman to act with the representatives of the Compensation Insurance Companies regarding the matter of compensation fees. They also appointed Drs. Fish and Frank to act as a committee to make health examinations at the Atlantic County Fair. This committee did excellent work.

Since the last meeting 4 deaths have occurred in this society, namely, Drs. Gurney Williams, James North, C. H. Canning, and Richard Bew. The meeting stood for a minute in silence in respect to the departed members.

Reports of Committees: Dr. Conaway for the Board of Censors approved the following applications for membership: Dr. Mark J. Haley, transferred from the Lackawanna Medical Society; Drs. E. L. Shore; George A. Poland; Barney B. Barab, D. D. S., associate member, and Isaac Shenfeld. It was regularly moved and seconded that these gentlemen be elected to membership. The application of Dr. William B. Kohn, V. M. D., was referred to the Board of Censors.

Dr. Morrison, Secretary of New Jersey State Medical Society, spoke about the transactions of the delegates at the last convention and of meet-



ings of the Tristate Medical Conference. Dr. Morrison said that the State Society had always opposed "annual registration" of physicians in this state, but now that New York and Pennsylvania have registration and by it have a means of keeping out illegal practitioners, these illegal practitioners are swarming into New Jersey. In order to resist this invasion of illegal practitioners into New Jersey, the county societies must approve of this registration in order to raise funds to keep undesirables out of the state.

Dr. Morrison suggested that the county society devote one meeting each year to "economics" and "public relations".

Dr. Conaway presented his resignation as Permanent Delegate, which was accepted.

The Nominating Committee submitted the following recommendations:

President, Dr. William C. Wescott; Vice-President, Dr. James H. Mason; Secretary, Dr. Joseph Marcus; Reporter, Dr. Harold S. Davidson; Board of Censor, Dr. Clarence A. Andrews.

Scientific Program—Dr. Edward L. Bauer, Professor of Pediatrics, Jefferson Medical College, read a paper on "High Lights on Our Present Knowledge of Infantile Paralysis."

Dr. Bauer, said, in part, that the present increase of cases does not approach an epidemic. In Philadelphia, 33 cases were reported. They usually have 16 to 20 a year. All cases are reported before October as a rule. The disease is endemic and contagion is not very great, about 1/15 of that of scarlet fever. Contagion follows the line of travel. It is transmitted from the upper respiratory tract of one to the upper respiratory tract of another and brings to light number of carriers. They may be abortive cases but chronic carriers. The carriers may be virulent as long as 2 years. There are very few secondary cases in the same household. There is no evidence that insects carry the infection. No cases occurred in well isolated children's homes. Milk and water probably do not carry the virus. Pathology shows hyperemia and mononuclear infiltration of leptomeninges, then spreads at point of election with edema. While only one part may be paralyzed, it is not a local disease; other organs are involved; liver changes occur and there are lymphatic changes throughout the body. Can isolate the virus but as yet no organisms have been discovered. Both Noguchi and Rosenau have presented bodies which are supposed to be the cause, and they have produced serums which will prevent infantile paralysis in monkeys.

Anatomically, there are 3 types: cerebral, bulbar and spinal.

Clinically: abortive, cerebral with spastic paralysis and the bulbar type with flacid paralysis; 90% of the cases are under 10 years of age; 83 under 5 years of age; incubation period is 3 to 10 days and may occur up to 16 days.

Symptoms: Usually sore throat, headache, drowsiness and then paralysis. Others show meningeal signs simulating encephalitis or tuberculous meningitis. Others show tonsillitis, vomiting, intestinal upset, together with slight rigidity of neck and general hyperaesthesia. This indicates need for lumbar puncture. Spinal fluid early may not show much, but as edema appears the fluid comes under pressure and mononuclear cells appear. Fehling's solution is reduced and globulin is present. In the acute stage the child should be put to bed to rest and lumbar puncture performed repeatedly to relieve pressure and prevent cell destruction, thereby reducing paralysis. Some feel that lumbar puncture may disseminate

the infection, but it is already a systemic infection. Magnesium sulphate by mouth may reduce the pressure in the spinal canal.

Convalescent serum helps monkeys but unless the serum is from a case recently ill it is of very little use and must be used before paralysis occurs. The streptococci serums do not give results and do give serious reaction. Until we know the organism we cannot have a satisfactory serum.

Some advise getting patients up as soon as they recover from an acute illness, to prevent malposition and atrophy; others keep them in bed at rest. Because it is a general inflammatory disease, it is best to keep them at complete rest; certainly until all evidence of pain is gone. Apparently, there is no greater disability after rest than if gotten up. Manipulations are not indicated; may give electricity and massage after 6 months, but if there is complete destruction you will get no results anyway.

Dr. Howard Lillienthal, Clinical Professor of Surgery, Cornell University Medical College, New York City, spoke upon "What Surgery Can Do In Pulmonary Tuberculosis".

Surgery cannot cure pulmonary tuberculosis but surgery can aid in arresting the disease. First by rest, and if rest is complete, can arrest the disease. Second, by drainage, surgery can accomplish this. Pinching the phrenic nerve causes paralysis of the diaphragm and limits motion and the diaphragm rises and reduces the size of the chest cavity. This is a measure of choice in early tuberculosis. Drainage applies only to open tuberculosis; cough aids in drainage but only spills over the excess. The chest is rigid and cannot be compressed enough to drain adequately. By making the chest non-rigid this can be overcome. This can be done by putting air into the pleura, compressing the lung and squeezing out secretion. Pneumothorax is of great help when the lung can be compressed. There is always a possibility of an air embolus. Repeated punctures almost always cause purulent exudate and a tuberculous empyema.

By resecting the ribs we can compress the chest and collapse the lung. This obliterates cavities and causes drainage. In suitable cases this works very well. Where the cavity communicates freely with the outer air, it will not collapse because there is no negative pressure and then you have to directly compress the cavity.

In tuberculosis empyema, a very valuable plan is to introduce trochar and canula and through the canula introduce a catheter and remove the canula. To the end of the catheter tie a soft finger cot and a slit in the end. This acts as a valve and will let out secretions and let in nothing.

## ATLANTIC COUNTY

### Atlantic City Hospital Staff

Joseph H. Marcus, M.D., Secretary

The October meeting of the Atlantic City Hospital Staff was held in the auditorium of the Nurses' Home, under the presidency of Dr. William J. C. Carrington.

The scientific program was presented as follows: Report of Ophthalmologic Service, Dr. Albert Pilkington; Report of Dental Service, Dr. B. Boynton Filer; Report of Obstetrical Service, Dr. Norman Quinn.

Dr. A. Pilkington, attending ophthalmologist,

prefaced his report with the statement that the science of medicine and the art of surgery are slowly becoming advanced exercises in applied physical science, and when we as surgeons lay down the test tube and take up the knife, we are, in so doing, merely confessing our failure as physicist and chemist, and admitting that, as yet, our laboratory is too complicated for us to manipulate, and our knowledge too fragmentary and inadequate for us to apply it systematically. Within recent years, advances in ophthalmology have been dominated by several factors: the increase in accuracy of diagnostic methods, the application of the methods of physiochemistry to biologic problems, and the tendency, just beginning, to interpret psychologic events on a biologic basis. The ophthalmologist is inclined to regard disease of the eye as part of a general systemic disorder. A certain proportion of cases sent for eye examination, coming with the chief complaint of dizziness, are not infrequently due not to disturbances of vision but to exhaustion, or to sudden movements of the fluid in the semicircular canals, or very frequently, to increase in blood pressure. The importance of eye examination relative to heart conditions should not be overlooked. In speaking of headache, the importance was stressed of eliminating frontal sinus disease, where correction of refraction may be unnecessary but drainage of the sinus is indicated. Pituitary headaches are found in young adults and not infrequently yield to glandular therapy. In sea-sickness the use of atropin sulphate was advocated, the resultant action being decreased sensibility of the semicircular canals or a diminishing of the secretions. Speaking of the retinal vessels, the caliber is interpreted in ratio of vein to artery as 3 to 1; the contraction of these vessels is seen in sclerosis and in functional constriction of the muscular wall; frequently dilations and irregularity of the caliber can be seen in the same vessels. The color of the retinal vessels is due to the blood column and the color of the vessel wall, the normal wall being transparent. As to arrangement of the vein and artery, the question often arises—what is normal? Not infrequently the condition seen might be one that indicates disease or might be a normal condition, the resultant diagnosis being relegated to the internist. When vision becomes hazy on account of increased or marked decrease in blood pressure general systemic treatment is indicated.

Dr. B. B. Filer, submitting his report of the Out-Patient Dental Department and House Service, presented 2 cases clearly demonstrating the relationship of dental infection to infectious arthritis, in an adult female and an adult male. Both cases were similar as to pathology and sequence of events. The arthritis was traced to abscessed teeth, and extraction brought about an almost immediate cessation of active symptoms, both patients being discharged a few days following admission.

Dr. Norman J. Quinn, Attending Obstetrician, reported his maternity service for the months of May, June and August, 1927, during which time 93 mothers were delivered. He stated that all cases had blood Wassermann tests. Two babies that were still-born were delivered by low forceps, one being a breech presentation. Both mothers had been in labor for sometime previous to being sent into the hospital. There were 91 deliveries in a normal manner, without the assistance of forceps. Dr. Quinn has instituted a régime of ward care which has given

good results: Every mother, with the exception of abnormal deliveries, is given a soft diet from the day of entry. For the first 24 hours after delivery the same diet is administered, and the following 24 hours and thereafter full house diet is given. Dr. Quinn feels that this method of feeding has practically eliminated the so frequently engorged and sore breasts and that the mothers feel well and have good appetites. Following delivery all patients, with the exception of those above mentioned, were given a back rest immediately and after the third or fourth day are encouraged to sit up in bed, tailor fashion. Dr. Quinn believes that this procedure favors an anterior position of the uterus and gives a superior method of drainage of the lochia. All nipples have the lead shield applied at the first indication of inflammation, as the most satisfactory remedy for engorged nipples.

Dr. Quinn concluded his report with the following case of cesarean section: Adult colored female, para two, admitted in good condition, with physical examination negative for important findings except for a small pelvis with an external conjugate of 18. Indications were for a cesarean section, which was immediately performed. The patient reacted with a temperature which reached 104.2° shortly after operation. The use of colloidal iodine, given intravenously, in doses of 1 c.c. was instituted until the temperature dropped to normal and remained so for 5 days. The patient made an uneventful recovery. This method of intravenous medication was observed by Dr. Quinn during his recent visit to clinics in various cities abroad, and he was prompted to use it here because of the beneficial results obtained in Europe.

## BERGEN COUNTY

Spencer T. Snedecor, M. D., Reporter.

The Annual Dinner of the Bergen County Medical Society was held at the Swiss Chalet on September 28. The occasion offered the opportunity to honor one of the oldest members, Dr. J. Finley Bell, of Englewood. Over 90 members turned out to make the dinner the liveliest and most enthusiastic of recent years.

Dr. George W. Finke, President of the Society, acted as toastmaster. Speeches in high tribute to the ability, character and scientific attainments of Dr. Bell were made by Dr. John Douglas, of New York; Dr. Charles Kelley, of Jersey City; Dr. John E. Pratt, of Dumont; Dr. G. Harold Ward, of Englewood, and others.

One of Bell's oft suggested projects has been a home for the county society, where its meetings might be held, a medical library founded and a genuine medical center established similar to the Academy in New York and in Newark.

Dr. Edward P. Essertier, Chairman of the Building Committee, reported that active steps are being taken to organize this project. It is estimated that the building and ground will cost \$50,000 to \$75,000. This will mean an assessment of something like \$200 per man, with the balance in mortgage.

Doctors Paine, Pitkin, G. H. Ward, Corn, Bell, and Finke spoke in favor of the proposition and pledged their active support.

## October Meeting

The regular meeting of the Society was held in the Englewood Hospital on the evening of October 11.

Dr. Meyer of Mahwah was elected to mem-



bership. The secretary read a letter from Dr. Morrison listing the permanent delegates to the State Society as Drs. Proctor, Swayze, Hallett, Edwards, Freeland, G. H. Ward, J. F. Bell. Dr. Clarke announced that all of the past minutes had been received from Dr. Brundage except his own which were still to be edited.

The program of the evening was presented by the staff of the Englewood Hospital.

Dr. G. Harold Ward read a paper on "Nasal Accessory Sinusitis, in General Practice", which was extremely practical and instructive. A brief review follows: In the new born baby only the ethmoid and antral cells are open. The other sinuses open up at irregular intervals during childhood. The ethmoid cells have two functions; they moisten the air and help vocal resonance. Interesting facts on the drainage of the nasal cells are that the ethmoids drain from any position; the frontals only when in the upright and the antral when recumbent.

Some of the explanations for the chronicity of nasal infection are anomalies in the nose, such as deviated septum and the interlocking nature of many of the cells, whose shape is irregular and often times the cells empty successively one into another before they finally drain out into the nose. Dr. Ward stated that postnasal drainage always comes from the sinuses, usually the ethmoids, and the constant dripping into the throat leads to inflammation of the arytenoid cartilages of the larynx. Conversely, all sinus infections give postnasal drainage. In bed, gravity feeds it back down the throat and most of it is swallowed; a fact which suggests a frequent cause of gastric ulcers, rheumatism and neuritis. Peculiarly, a certain amount of mental depression is concomitant with acute sinusitis.

Our aids in diagnosis are first, suction, which if it brings forth pus denotes trouble in the anterior sinuses. Secondly, transillumination is a most satisfactory help in the diagnosis of an infected antrum but rather poor in the frontals because of their irregularity and varying size. Diagnosis of frontal trouble may be made by suction first and then by x-rays. As a routine diagnostic aid x-rays alone are of little value.

Dr. Ward believes that several important phases in the treatment of sinus conditions are not fully recognized by general practitioners. In the acute flare-up the constitutional care is first of all rest in bed. The room should be kept at an even temperature. The raw night air does not favor easy breathing. Suction is an invaluable aid. It cuts down operative procedures 50% but often must be persisted in for a long period of time. As for medicines, it becomes a question first of shrinking the membrane. Adrenalin is useful but not satisfactory. If used, gain its complete effect in the following manner: Instill adrenalin drops combined with cocain. In 10 minutes blow the nose and repeat instillation and again blow the nose. This procedure should not be repeated more often than twice a day. Ephedrin is a new substitute for adrenalin worth full exploration.

Heat is of value in acute sinus infections but must be used with discretion. If it increases drainage, fine; if it does not, cease, for it will do more harm than good. Ice may be utilized at any time, especially for children with acute ethmoids. It does no harm. Smoking is detrimental because it keeps up an irritation.

Chronic unexplained coughs in children are frequently due to postnasal drainage from a sinus.

Vaccines are worth trying in the acute infec-

tions but seem ineffective in the chronic cases. The tonsils must be considered as the focus of trouble in cases of indeterminate sinusitis.

High colonic irrigations are of the greatest value in sinus conditions. Elimination of the large amount of mucus that has been swallowed will give relief from the absorption of poison and improve the general feeling.

A suction tube with a nasal tip at one end and a rubber bulb at the other is an instrument devised by Dr. Ward to be carried in his bag for use in the home. It is very effective. The Lore suction apparatus, attaching to the water faucet, is a satisfactory home apparatus made by the Wregg Company.

As for complications, inflammation of the optic nerve is fairly common because the nerve frequently runs through the posterior ethmoid cells and suffers when pus is damned back. The other eye complications are numerous; such as conjunctivitis, iritis and, in children from 3 to 5 years, phlyctenular keratitis.

The etiology of asthma should always lead one to investigate the sinuses. Blowing the nose is an important function; one side at a time and as hard as possible, blocking the ears with the finger to prevent inflation of the middle ear.

Children are sometimes extremely difficult subjects in which to clear up their chronic running noses. Lymph tissue, adenoids, will regrow in these chronic cases.

The paper was discussed by Drs. Corn, Bell and Lipman.

Dr. Sandler then reported a case of "Streptococcus Viridens Septicemia Following Extraction of a Tooth". The outstanding features of the case were the early diagnostic petechiae with white centers, the persistent cough and the large amount of mucus in the stools and vomitus. The treatment is hopeless. Drs. Gilady and Swayze discussed the case.

Dr. J. B. Edwards concluded the evening with a demonstration of x-ray films.

### Hackensack Hospital

Spencer T. Snedecor, M. D., Reporter.

The monthly staff conference was held on October 17, at which time the following officers were elected for the ensuing year: President, Dr. Donald A. Curtis, of Hackensack; Vice-President, Dr. Thomas L. Caldrony, of Ridgefield Park; Secretary, Dr. Harry B. Wolowitz, of Hackensack.

The program for the evening was given by the Obstetric Department, Dr. Frederick S. Hallett, Director. By request, Dr. Harvey B. Matthews, Professor of Obstetrics and Gynecology at Long Island Medical School, discussed the cases and added a short talk illustrated with lantern slides.

The subject was "Still-births" and the following cases from the mortality of the previous month were presented:

(1) Spontaneous delivery of a macerated fetus at term, by Dr. R. O. Johnson. The fetus was dead at time of admission to the hospital. Delivery was uneventful. The placenta was distinctly pathologic with many fibrous white plaques suggesting syphilis, but microscopic examination did not prove it and the Wassermann was negative.

(2) Spontaneous delivery of a macerated fetus at term due to syphilis, by Dr. R. O. Johnson. This fetus was also dead on admission and the Wassermann was 3+.

(3) Cesarean section after failure at instrumental and manual delivery, by Drs. Perham, Ed-

wards and Hallett. This woman was in labor 72 hours and could not be delivered because of an abnormally large head. Several attempts at forceps and version were made without success. Even craniotomy did not collapse the head. Cesarean section was done as a last resort after a transfusion, but the patient died 2 days later.

(4) Version after failure to deliver baby in posterior position with forceps, by Dr. T. L. Caldronery.

(5) A similar case by Dr. H. B. Wilson.

(6) Infant death 2 days after delivery of a baby weighing 12 pounds 10 ounces. Extraction while not instrumental was a difficult procedure because of size of baby.

(7) Infant death 7 days after normal delivery by Dr. W. D. Webb. This was a blue baby at birth and never gained good color. Careful examination of the infant did not reveal a patent ovale. On the seventh day a temperature of 103° set in and the baby died. Although there were no signs of paralysis the cause of death was considered as either cerebral hemorrhage or, possibly, pneumonia.

At the conclusion of a lengthy series of questions on his talk, Dr. Matthews showed some slides of x-ray films to demonstrate the value of x-rays in pregnancy. The points which may be absolutely determined from x-rays are: (1) The diagnosis of pregnancy by finding the fetal bones as early as 16 weeks; (2) position of the baby; (3) multiple pregnancy; (4) monsters; (5) viability; lack of viability is shown in 2 ways, by overlapping of the cranial bones and excessive curvature of the spine.

#### BURLINGTON COUNTY

R. I. Downs, M. D., Reporter.

The 98th annual meeting of the Burlington County Medical Society was held Wednesday, October 12, 1927, at the Imperial Hotel, Mount Holly, at 1 p. m. After an excellent dinner, the meeting was called to order by the president, Dr. B. K. Brick, with 25 members present.

Dr. Ralph Haldeman, of Mount Holly, was duly elected to membership and signed the constitution. The application of Dr. M. H. Schisler, of Florence, was received and referred to the Board of Censors.

The Auditing Committee, consisting of Drs. Maul and Bauer, found the Treasurer's Report correct.

The annual election of officers followed. The Nominating Committee, consisting of Drs. Joseph Stokes, Downs and Remer, presented the following names for election: President, Richard D. Anderson; Vice-President, Harry W. Bauer; Secretary and Treasurer, George T. Tracy; Reporter, Roseius I. Downs; Censor, E. R. Mulford; Delegates to State Society, Harry L. Rogers, S. Emlin Stokes; Alternates to State Society, Edward R. Hunter, E. Lester Small; Member of Nominating Committee of State Society, M. W. Newcomb; Member of Welfare Committee to State Society (Appointed by President of State Society), D. F. Remer. Delegates to Camden County Medical Society: Howard C. Curtis, Benjamin F. Brick. Delegates to Atlantic County Medical Society: Emlin R. Darlington, H. E. Longsdorf. Delegates to Cape May County Medical Society: Alex. Marcy Jr., Nathan Thorne. Delegates to Gloucester County Medical Society: B. B. Powell, George H. Wilkinson. Delegates to Salem County Medical Society: E. Warren Rodman, Parry M. Scott. Chairman Section, Practice of Medicine:

Howard C. Curtis, Surgery; D. H. Bartine Ulmer, Obstetrics and Pediatrics; Edgar J. Haines.

Dr. Thorne moved that the secretary procure for each member 5 copies of the "Primer". He considers it useful literature for the office. The motion was carried.

The president received a letter from M. Florence Gaskill, R. N., a local Metropolitan visiting nurse, asking for approval of the Burlington County Medical Society to a list of routine standing orders used by the Metropolitan nurses. The society did not approve the orders; first, because they were not presented by the company itself; and second, because the society was not in sympathy with all the orders. The society suggested several changes.

Dr. Remer, who has just returned from a 5 months' tour of Europe, was asked to tell of his recent experiences. He started his journey with a group of Rotarians who chartered a steamer to attend a convention in Europe. He described Ostend, an ocean resort, the play-ground of Belgium. It has a shallow harbor and the beach is walled up at an angle of 30 degrees. The boardwalk, made of cement, is wider than that of Atlantic City. The city itself is 20 feet below sea level. The houses are built of stone, brick, concrete with tile roof and are all fireproof.

In his trip to the battlefields he saw the Big Bertha where the soldiers had to stand 30 yards away to prevent concussion when the cannon was in action. Many trenches are preserved. The cemeteries are numerous. He mentioned one whole cemetery of 35,000 English boys. Each grave is marked by a white head and foot stone, with the grave of a Lieutenant-Colonel next that of a private. The graves of unknown soldiers are marked as follows: "Here lies a soldier known only to God."

He traveled to Cologne, Germany, and through Alsace-Lorraine. He described this as a beautiful country whose shores rise abruptly 1500 feet on each side of the Rhine. It is composed of rock with patches of fertile land where vineyards are planted. Castle ruins are found here and there. He traveled through Frankfurt and Heidelberg. He described the scenery of many places in Switzerland—Basel, Lake Thun, Interlaken, Jungfrau Mountain, Luzerne and Zurich.

He next arrived at Vienna where he spent 5 weeks of intensive instruction on the eye. The day commenced at 7 a. m. and extended to 1:30 p. m. Vienna, a community of 3,000,000 people, has hospital facilities of 7000 beds. The law make autopsies compulsory, in all deaths. All bodies not claimed in 24 hours are used in experimental work. Instruction is in English, supervised by the A. M. A. of Vienna, an organized system. Dr. Remer feels that Vienna is the best place for postgraduate work. When planning a postgraduate course at Vienna, letters and credentials from an American physician of national repute are of great benefit. A postgraduate certificate is given on completion of course of 250 hours or more.

He returned by the lower route, through Pompeii, known for its sculptors, art and baths through Naples, Genoa, Italian and French Riviera to Paris.

Dr. Remer was in Paris for 10 days during the Legion Convention and is enthusiastic in praise of the American soldiers there. He returned on the Berengaria and rejoiced at the sight of the Statue of Liberty. It is the general opinion in Europe that the spreading of the English language throughout Europe will be the greatest help in preventing another war.



President Brick presented the Annual Address. Under the subject, "In Retrospect", he enumerated and described in an interesting manner the many medical improvements that have been accomplished since he began the practice of medicine. His paper will be forwarded for publication shortly.

Mr. Fisher, representing De Puy splints, demonstrated the uses of them to those interested.

The meeting then adjourned to meet at "Fairview", the County Tuberculosis Sanatorium, in January.

### CUMBERLAND COUNTY

E. S. Corson, M. D., Reporter.

The society held its semiannual meeting at the Hotel Cumberland, Bridgeton, October 4, with a very large percentage of attendance.

Election of officers for the ensuing year resulted as follows: President, J. S. Knowles, of Millville; Vice-President, M. F. Sewall, of Bridgeton; Secretary, E. C. Lyon, of Bridgeton; Treasurer, Herbert H. Wilson, of Bridgeton; Reporter, E. S. Corson, of Bridgeton; Annual Delegates to State Society, Reba Lloyd, of Bridgeton; and Helen E. Weithaase, of Vineland; Permanent Delegates to State Society, Alfred Cornwell, of Bridgeton.

Dr. R. B. Vincent Lyon, Associate Professor of Medicine at Jefferson Medical College, presented a paper on "The Nature, Diagnosis and Treatment of Disease of the Gall-Bladder". Dr. Lyon stated that disease of the gall-bladder and tract are most frequently due to dietetic errors, alcoholic excesses and sedentary habits. Infection of the gall-bladder is not easily induced unless traumatism has produced changes in the mucosa. Bile in the urine is not always indicative of gall-bladder involvement. There may be catarrhal obstruction of the cystic duct. Duodenal tube and microscopic examination of specimens will best determine the condition. There are many points of treatment in the earlier stages that are as yet undecided. In cases of frank cholesterin findings, surgery is called for. Do not, however, operate until the condition is in a quiescent stage. Common duct cases are more dangerous than simple gall-bladder cases, and at present the surgical mortality is high.

(The Secretary of Cumberland County Medical Society sent us recently the following poetic outburst from the Reporter; occasioned by yachting party during the summer.—Ed.)

Nurses went a scouting, sailing down the bay,  
 'Long with Capt. Glendon on the Cytherea,  
 Had their pictures taken with their sweetest smile  
 In the log to place them in a fancy file.  
 Candy, fruit and dainties when their stomachs fail  
 Breezes, clouds and sunshine hearts regail,  
 Doctor Sewall in the galley eating bread and ham,  
 Roy in the engine room quiet as a clam.  
 Master Glendon sleeping, snoring overhead.  
 Capt. Smith in cabin, lips bedecked with red,  
 Mrs. Sewall chaperons, in a quiet way,  
 Dozing the forward deck, wiles the hours away  
 Nurses, bright and happy drinking ginger ale  
 some with dimpled ruddy cheeks, others looking  
 pale

Spright and lithesome sailors, steer a steady trick  
 Keep the ship from rolling, and nobody's sick.  
 Doctor Corson happy swatting all the flies  
 Fog horn makes the nurses think the baby cries.  
 Eats and fun and frolic floating down the bay.  
 Long live Capt. Glendon to sail Cytherea.

### ESSEX COUNTY

John J. Connolly, M.D., Reporter

The 112th annual meeting of the Essex County Medical Society was held in the Auditorium of the Academy of Medicine of Northern New Jersey, Tuesday evening, October 4, with Dr. Sanford Ferris presiding. The minutes of the previous meeting were read by Secretary Pinneo and approved.

Dr. Walt P. Conaway, of Atlantic City, President of the New Jersey State Society, was guest of the evening and received a very cordial ovation. He addressed the organization and outlined his policies for the ensuing year.

The Treasurer presented his yearly report which showed payments to the Treasurer of the State Society of \$6320 and total expenditures of \$8113.29; with a present balance of \$4289.97.

Dr. John F. Hagerty, Chairman of the Necrology Committee, read obituary notices of Drs. Charles F. Underwood, Frederick Paul, A. B. Russell and James T. Wrightson, all of whom had died during the past year. The tribute to Dr. Wrightson, prepared by Drs. McEwan and Staehlin, who had been close personal friends, was an especially beautiful one.

The Milk Committee reported an increase in the sources of supply of certified milk and also an improvement in the various grades of milk throughout the county.

The Committee on Automobile Emblems reported the receipt of 100 new type A. M. A. emblems which are being distributed to subscribers.

Dr. Sanford Ferris read his "Presidential Address", which was a review of many of the outstanding achievements in medicine and surgery and their influence on the profession and society at large. He also took occasion to commend the administration and equipment of the Medical Library of the Academy of Medicine, where a librarian in daily attendance is ready to furnish material on any subject in medical literature.

The Council reported to the society a recommendation that "annual registration of physicians" be opposed. This proposed measure was discussed by Drs. Barkhorn, Hagerty, Morrison, Mitchell, Wherry, Pinneo and Van Ness, following which it was

RESOLVED, That the Essex County Medical Society feels that the objections to annual registration such as: (1) annoyance of registering; (2) cost of registration; (3) withdrawal of the right to practice during any unregistered year; (4) possibility of the imposition of a fine for not registering; (5) the fact that many counties have their lists complete or could be made so by the mere hiring of a clerk to check up on them, so far outweighs the 2 claimed advantages—(a) that it would give the profession a full list of licensed physicians, osteopaths and chiropractors; (b) that it would give the State Board of Medical Examiners an increased amount of money with which to prosecute illegal practitioners—

THEREFORE, the Essex County Medical Society, at its annual meeting, petitions the Board of Trustees and the Welfare Committee of the State Society neither to present nor to encourage a bill for annual registration of all licentiates.

This resolution, which was introduced by Dr. Henry C. Barkhorn, was passed by a standing vote of 71 to 6.

The following new members were elected: Felix Baum, Newark; Othmar J. Beyer, Irving-

ton; Albion C. Christian, Irvington; H. S. Connamacher, Newark; R. L. Durfee, Irvington; S. W. Ebenfield, Newark; Irving L. Farr, Montclair; Philip V. Fava, Newark; Julius Fechner, Newark; E. J. Fischer, West Orange; Emanuel Goffman, Montclair; William Hahn, Newark; B. C. Hamilton, Newark; Richard T. Hobart, Montclair; Jerome G. Kaufman, Newark; Edward A. McVay, Newark; Joseph A. Miller, South Orange; Joseph Nataro, Newark; Edward M. Rizzolo, Newark; S. A. Shapiro, Newark; Robert G. Stewart, Montclair; Arthur C. Thornhill, Montclair; Edward Cris, Xarier De Valez, Newark; Lucius J. Woodworth, Bloomfield; I. Zweigel, Newark.

The following officers for the ensuing year were elected: President, Max Danzis; Vice-President, Richard M. Connolly; Secretary, Frank W. Pinneo; Treasurer, Robert H. Rogers; Reporter, John J. Connolly; Councilors to 1928, G. F. Dowd; H. C. Barkhorn; E. S. Sherman; Alfred Stahl; Councilors to 1929, H. R. Van Ness; E. W. Murray, D. A. Kraker; C. B. Griffiths; additional Permanent Delegates elected to the State Society, Edgar A. Ill; Anthony C. Zehnder; and L. Zerlip.

A collation, which was greatly enjoyed by the members, was served after the meeting.

#### HUDSON COUNTY

M. I. Marshak, M. D., Reporter.

The Hudson County Medical Society met at the Carteret Club, in Jersey City, on Tuesday, October 4, with Dr. S. R. Woodruff presiding. The Board of Censors reported that they had studied the report of the special committee appointed to investigate the case of Dr. J. J. Rudolph, of Hoboken, who was charged with unethical practice. The evidence accumulated by the committee in collaboration with the American Medical Association, in conjunction with the fact that Dr. Rudolph refused to appear before the Board in his own defense, convinced them that he was guilty as charged. They recommended that Dr. Rudolph be expelled from the Hudson County Medical Society.

A motion was made and seconded that the report of the Censors be received and their recommendation adopted. This motion was unanimously carried and Dr. Rudolph was thereby expelled.

Dr. I. Rosen, Professor of Dermatology and Syphilology at the New York Post Graduate Medical School, gave a talk on "Syphilis". He said that syphilis is a constitutional disease with many local manifestations, extensive and very intensive, because of which early diagnosis is imperative. When the ulcer, papule or vesicle appears, the disease is already constitutional and the spirochetes may be found even this early in the viscera and in the bone marrow. The Wassermann reaction varies and is not present at the same comparative time in all patients; therefore, it cannot be depended upon for early diagnosis although it is present in 95% of the secondary and in 70-75% of the tertiary cases. "If clinical diagnosis is positive, treat the case for syphilis even if the Wassermann is negative." This is especially true in cases in which the bone, cardiovascular or nervous systems are involved. The treatment does not only consist of salvarsan injections. Each patient must be individualized. In primary cases, time is valuable and the patient is comparatively healthy; large doses may be given.

However, in patients with aortitis, aortic insufficiency, aneurysms, tuberculosis, asthma, heart disease, etc., large doses are extremely dangerous. The treatment, in order to be successful, must be carried on for a long period of time. A course of treatment should consist of 8 intravenous injections of some type of salvarsan, with 10 or 12 intramuscular injections of mercury. In primary and secondary syphilis, one should give 3 courses during the first year. He finds that medium doses give the best results. A lumbar puncture should be made at the end of the first year, as 40% of cases show a Wassermann positive spinal fluid before the end of the second year. In tertiary syphilis, the viscera, cardiovascular and nervous system are involved, and each should be treated along a rational plan. Examination of the eyes gives the earliest information in disease of the central nervous system. This examination should be routinely made in all cases of syphilis. In cases with severe visceral damage, intensive treatment with poisonous drugs is extremely dangerous. Small doses of salvarsan or of bismuth might be used. Treatment must be kept up until the spinal fluid is Wassermann free. In syphilis of the tongue, arsenicals may produce malignant degeneration.

In the new-born the most reliable sign of syphilis is found in the microscopic examination of the placenta.

The central nervous system cases which give a negative history of chancre will usually give a history of gonorrhea or will show strictures in the urethra, the result of intraurethral chancre not recognized at that time.

Dr. Rosen concluded by demonstrating typical primary, secondary and tertiary lesions by means of lantern slides.

Drs. J. Koppel, J. O'Connor, H. Feit and M. Shapiro took part in the discussion.

#### Osler Clinical Society

M. I. Marshak, M.D., Reporter

The Osler Clinical Society met at the Union League Club, Jersey City, October 19, 1927, with Dr. Miner presiding.

Dr. Louis A. Pyle reported "A Case of Traumatic Ruptured Appendicitis Complicating Eight Months' Pregnancy". The patient a para three, age 32, was due August 20, 1927. Late in July she slipped and fell striking on her abdomen. Vomiting began at once and lasted for 36 hours. Pain with slight tenderness over the appendiceal region developed. Temperature and pulse were normal at first. After the vomiting stopped, the tenderness continued. At this time the patient became suddenly worse, with intense pain all over the abdomen; the pulse eventually reached 140 and the temperature 100.5° F. Blood study showed 18,000 white cells with 90% polys. On operation, 24 oz. of seropurulent fluid and the appendix were removed. The appendix showed a punched-out hole and there were evidences of a general peritonitis. A jejunostomy was also performed. The fetal heart sounds were lost 3 days after the fall. Labor was mild and of short duration, and the woman was delivered easily of a dead fetus. Nine days after the operation the patient developed colicky pains with vomiting. A diagnosis of acute intestinal obstruction was made and immediate operation disclosed a kink in the jejunum which was easily released. The patient made an uneventful recovery and was out of bed 14 days after the last operation.



Dr. Louis Franklin read the paper of the evening on "Kidney and Ureteral Stones", which he illustrated with x-ray films. He considered the etiology along mechanical, bacterial and physiochemical lines. It is usually an affection of middle adult life. Anything which blocks the urinary flow may act as a causative factor. As far as infection is concerned, he believes that because colon bacillus infection is more frequent in women and stone more commonly found in men, infection cannot be considered too strongly as an etiologic agent. It is known that the kidney can eliminate bacteria from the blood without injury to itself. He discussed the possibility of disturbed colloidal and crystallin balance in the urine as the main physiochemical cause of stone formation, stating that feeding certain salts causes stones to start and grow by further crystallin deposits on the already prepared nidus.

The symptoms of stone may simulate any abdominal lesion. There are pain, frequency, nausea and vomiting. On the right side, colic may simulate gall-bladder disease; on the left, angina pectoris. Bladder pain is sometimes present, and reflex pain in the other kidney is not unusual. Fever is not present unless infection occurs. A strange paradox is that the larger the stone the fewer the symptoms. Total anuria is occasionally noted. In ureteral stone, the pain is always at the site of lodgement; 75% of these are found in the lower third of the ureter; 50% of patients with ureteral stone have been operated upon for appendicitis, due to mistaken diagnosis; 25% of stones, especially uric acid stones, do not cast an x-ray shadow.

The diagnosis must be confirmed by x-ray studies, including injection of shadow casting fluids and use of the leaded ureteral catheter. Various procedures to produce passage of stones were mentioned and the types of operations described. The speaker showed plates of his cases and stated that of 26 cases only 4 came to operation; 21 patients passed the stone and one refused operation. "If no infection is present and kidney function is good, nephrotomy is the operation of choice".

The conclusions were: (1) Kidney stones may simulate any organic abdominal disease; (2) calculi eventually destroy the kidney; (3) x-ray examination and the functional tests must be made before operation; (4) renal tissue must be preserved wherever possible.

Drs. Blanchard, Von Deesten, Perlberg, J. Koppel, W. Friele, Nalitt, G. K. Dickinson, I. Franklin, Marshak and Louis Franklin joined in the discussion.

### HUNTERDON COUNTY

Leon T. Salmon, M.D., Reporter

Regular meeting of this society was held October 25, at Flemington, N. J.

After the regular business proceedings and while the society awaited the coming of Drs. John A. Kolmer and A. J. Casselman, the members attention was brought, by Dr. L. T. Salmon of Lambertville, to a new, satisfactory, painless and practical treatment for carbuncle. In outline of the proceeding he called attention to the advantage which the general practitioner has in seeing the lesion in the early stages; the misdirected efforts which the practitioner applies in the shape of ointments and other applications; to the protracted, painful and debilitating nature of the affection under ordinary treatment and to the frequent recourse which is made to

hospitalization and a serious operation with subsequent disfiguring scar. He recited the last 2 cases in his hands, one treated in the usual way, accompanied by pain, weakness, emaciation, loss of time from work and more or less permanent depreciation in the patients general health. This extended over a period of 7 weeks. In a more recent case, treated in the way here suggested, patient continued work, had comparatively no pain, was not weakened, emaciated or exhausted as the result of his carbuncle and the scar was healed in 3 weeks with a scar area about 2 cm. in diameter.

The plan is as follows: (1) Exclude sugar in the urine before doing anything. (2) Surgical preparation of the site of operation. (3) Thorough freezing over the whole raised part of the carbuncle. (4) Denude, by scalping, the whole surface of the carbuncle going, on all sides, well out beyond the openings. (5) Incise down to the deep fascia as many openings as seem indicated. (6) Control bleeding and apply any antiseptic ointment in sufficient thickness to facilitate discharge and prevent crusting. (7) Pick slough out and as soon as possible apply zinc oxide adhesive directly to the exposed tissue and well over the sides (skin being mercuriochromized). The removal of the infected skin, the change of the direction of the line of least resistance away from the deep lymph spaces to or toward the body surface, the detension ease and the simplicity of the procedure seem to make this treatment at least worth the trial which Dr. Salmon asked the members to afford it. He requested reports on results and asked for further suggestions for the betterment of the plan. Remembering that this treatment is particularly useful in the early stages of carbuncle it is hoped any physician, to whose attention this article may come, will not hesitate to add his experience, by letter, to the list.

Close upon the heels of the discussion following this presentation came the address of the day, an extemporaneous lecture by Dr. John A. Kolmer, of Philadelphia. In this engrossing talk he dealt with the bacteriology, laboratory tests and examinations of the spirochetes, detailing their relative value; with the symptoms of early, middle and late syphilis, and treatment of the 3 stages; the remedies and their relative values and many of the practical manners of handling the very early and late cases. Altogether, the talk was the most interesting, practical and instructive lecture which has come to the society, from any source, in many years.

Dr. Casselman had prepared 2 demonstrations of the diplococcus and a dark-field illumination of a specimen of living spirochetes. This, too, was highly interesting and instructive. The discussion of these slides, together with a discussion of the treatment of gonorrhea was, on account of the late arrival of Dr. Casselman, taken up after the usual lunch had been served.

The newly elected officers for the ensuing year are as follows: President, Dr. L. A. Hamilton; First Vice-President, Dr. Theodore B. Fulper; Second Vice-President, Dr. A. Louis Gramsch; Treasurer, Dr. E. W. Closson; Secretary and Reporter, Dr. L. T. Salmon; Delegates to the State Society, Dr. Austin H. Coleman.

### MERCER COUNTY

A. Dunbar Hutchinson, M. D., Reporter.

The Mercer County Medical Society met in Graduate College of Princeton University on June 29, President John B. Sill in the chair.

Dr. John A. Kolmer, Professor of Pathology and Bacteriology of the University of Pennsylvania, with the assistance of Dr. Casselman of the New Jersey State Department of Health, delivered a most entertaining discourse on the subject of Syphilis; lantern slides and dark field specimens being shown. Dr. Casselman opened the discussion and greatly enhanced the value of the subject by his thorough description of the knowledge to be gained by close study of every case. Dr. Kolmer made an earnest appeal for a more sincere effort on the part of the general practitioner to study and follow up obscure and baffling cases that come under his observation.

Dr. Schaufler expressed regret that Dean West was unable to be present at the meeting.

A sociable hour was enjoyed during the dinner, at which time several members added zest to the appetite by reflections of the past, and prospects for the future.

#### October Meeting

The Mercer County Medical Society met in regular session in the Carteret Club on October 12, Dr. Sill presiding. The minutes of the preceding meeting were read and approved. The following Memoriam was submitted and ordered placed on the minutes:

#### In Memoriam

George R. Moore, M. D.

Possessed of a weak body, George Moore did not sit back and groan or lament about this fact, but proceeded to make the very best of what he had, so, in spite of a frail body, made the type of physician it would be well for all of us to follow.

No higher tributes were ever paid to a physician in Trenton by both the laity and his brother physicians. The best we can say of him but feebly expresses the great love and deep appreciation the people of Trenton feel for him.

A life cut short of his allotted time, he devoted all to the fight for that which was right, that which was honorable, and that which was just. Always gentle and kind to those whom misfortune brought beneath his sympathetic care.

Possessed of great ability and acute diagnostic powers, he never failed to lend a helping hand when called to aid a person in distress. "No nobler soul 'eer lived; no bigger heart 'eer throbbed in human breast, no gentler spirit 'eer sat beside the sick bed of mortal man."

At last, as the dawn of waning strength fell upon him, with heart ever faithful and the vision of Paradise steadily before his eyes, he was ready to approach the shades of the dark valley, and to greet death with a smile and an extended hand.

Though we shall no more hear his voice, nor see his form, we know that he lives, and that the example of his manly life will abide among those who knew him, forever more.

We extend to his many friends, and especially to those nearest and dearest to him, our heartfelt sympathy.

(signed)

Enoch Blackwell,  
James J. McGuire,  
Frank G. Scammell.

The applications for membership of Drs. A. D. Summers of Princeton, William C. Ivins and James B. Mason of Trenton were referred to the Membership Committee.

Several communications, relative to the Cham-

bersburg Hospital, were read and discussed, the Secretary being authorized to answer the communication dated September 8, 1927.

Letters of condolence were authorized to be sent to Drs. F. M. Arthur and R. H. C. Phillips, who are ill.

Following an informal discussion during the luncheon which followed adjournment, plans of the Program Committee for the winter season addresses were gone over.

The usual committee was authorized to arrange the annual banquet.

#### MIDDLESEX COUNTY

J. M. Gutowski, M. D., Reporter.

The third regular meeting of the Middlesex County Medical Society was held Thursday, October 13, 1927, at the New Brunswick Y. M. C. A. President Henry, Jr., calling the meeting to order at 4 p. m.

Under new business, a letter from Dr. Ney, of New York, was read and referred to the Program Committee for action.

Dr. Charles T. Steffens, of Dunellen, was proposed for membership by Dr. G. T. Longbothum. This was referred to the Membership Committee.

Dr. Conaway, President of the New Jersey State Medical Society, was next introduced. He spoke on the "Newer Activities of the State Society". He explained the various types of Group Insurance, Antidiphtheria Campaign, and the State Society Home.

He was followed by Dr. Reik, Editor of the New Jersey Medical Journal. Dr. Reik's topics were the Journal, Public Educational Program, and Woman's Auxiliary.

Dr. Morrison, State Secretary, followed. He explained the activities of the State Society in welfare work, Tristate Conference and Insurance. He also spoke on annual registration of physicians in New Jersey and listing of crippled children, and suggested that at least one meeting of the society during each year be devoted to "Medical Economics" and "Public Relations" discussions.

Dr. Hoffman, of New Brunswick, was then introduced and presented a very interesting paper on "Bronchoscopic Treatment of Lung Abscess". He reported actual cases and explained these by aid of radiograms. The paper was discussed by Drs. Gutman, Schureman, Morrison, Lund, Klein and Johnson.

After the discussion was closed, a motion was made, seconded and passed, authorizing the Middlesex County Medical Society's endorsement of annual registration of Physicians in New Jersey.

Dr. Henry, Sr., then made a motion which was seconded, directing the Secretary of the Society to communicate with Dr. Reik in reference to the establishment of a woman's auxiliary in Middlesex County.

Dr. Johnson, Treasurer of the Society, was authorized to sell \$150 worth of Second Liberty Bonds and to turn the money into the treasury.

#### MONMOUTH COUNTY

F. J. Altschul, M. D., Reporter.

The Monmouth County Medical Society meeting was held October 26, at the Monmouth Memorial Hospital, Long Branch. This was the first meeting of the society since May, there being no meetings during the summer months.



After a short business session, Dr. Morris Grossman, of New York, read a most exhaustive and masterly paper on "Encephalitis". Dr. Grossman is connected with the neurologic services at Mount Sinai Hospital and Montefiore Home, New York, and is the Consulting Neurologist to the Monmouth Memorial Hospital.

The paper was based on a thorough study of 100 cases of epidemic encephalitis personally studied by the speaker. A feature of Dr. Grossman's paper was the follow-up study of the cases. The post-encephalitic sequels were extensively discussed, and a motion picture film depicting the various post-encephalitic syndromes most vividly. A general discussion followed the reading of this paper.

After a buffet supper, the meeting adjourned.

### MORRIS COUNTY

Marcus A. Curry, M. D., Reporter.

The annual meeting of the Morris County Medical Society was held on the evening of Tuesday, September 27, at the New Jersey State Hospital at Greystone Park by invitation of the Superintendent and Board of Managers of the Institution.

President Plume presided over an assemblage of about 40 members and guests; the latter including some of the more recent additions to the hospital staff, and, it is gratifying to record, President Walt P. Conaway and Recording Secretary J. Bennett Morrison of the State Society.

The usual routine business was disposed of; this including the reading by Secretary Lathrope of the proceedings of the Executive Committee; that it had been decided to circularize the members on the question of subjects and speakers for meetings during the ensuing year; that they would be grateful for any suggestions regarding topics and speakers that the members should like to advance; bespeaking serious attention to the circular letter and the questions asked, and hoping for replies that will be of some service to the Executive Committee; that it is expected to have 6 meetings during the coming year, including 2 special meetings, one in January or February and the other in April or May; that on the subject of the importance of x-ray pictures and their interpretation it is expected to have a speaker in a very short time; that a communication on the subject of "Birth Control" had been answered, expressing sympathy with the general subject but stating that the attitude of the society was one of "watchful waiting".

Treasurer Reed's report indicated a healthful condition of the "chest" with a present balance of \$1242.42. Dr. Williams, of Madison, was appointed to audit the Treasurer's books.

Three proposals for membership were received; William S. Voorhees, of Mendham; Thomas B. Christian, of Greystone Park; and Walter M. Bartlett, connected with the Physiatrie Institute at Morristown. These were referred to the Credentials Committee.

Election of officers and delegates for the ensuing year resulted unanimously as follows: President, Samuel C. Haven, of Morristown; Vice-President, L. L. Mial, of Morristown; Secretary, George H. Lathrope, of Morristown; Treasurer, F. Grendon Reed, of Morristown; Reporter, Marcus A. Curry, of Greystone Park; Historian, Henry W. Kice, of Wharton. Additional members of the Executive Committee: Plume, Peck and Glazebrook. Delegates to the annual meeting of the State Society: Costello, Lathrope and McMahon. Alternate delegates: Spencer, Plume and Sherman.

The retiring President's Address was next in or-

der and this officer, in deference to the presence of State Society President Conaway and Recording Secretary Morrison, and anticipating the great desire of the members to have the pleasure and benefit of hearing as fully as possible from these fountains of information on topics of stimulating interest to medical men of the state, very gracefully confined his oral address to items of intimate interest to the county society, and on the scientific side submitted a paper on the "Importance of X-Rays of Bone and Joint Lesions" which has been made available for publication in the Journal.

Retiring President Plume addressed the meeting as follows: "When I was nominated to serve as your President for the past year I felt that my qualifications were not what they should be for the job and that I should not accept the nomination, but at the same time I felt that it was an honor too great to be refused and I still have the same opinion and want to thank you for that honor. It has, indeed, been a pleasure and at the same time an education. However, I wish to tell you this time that it would have been a pretty hard job without the aid of your most efficient Executive Committee and your doubly efficient Secretary. To these men you owe thanks for the excellent programs that have been presented to you during the past year and I think you owe them more than mere thanks. If you have enjoyed any one of the regular meetings or of the special meetings, you owe it not only to yourself to attend more regularly but you owe it to the Committee; for it is only by your attendance at the meetings that you can show your appreciation and gratitude for the efforts put forth by the Committee in your behalf.

Perhaps you do not realize just what the Executive Committee does for the society. In the first place it attends to all business arrangements, relieving you of the time and trouble at your meetings and thus giving you more time to enjoy the program and allowing you to return to your homes an hour or two earlier than would be possible if the business were transacted in open meeting. But to do this your Executive Committee must meet from 1 to 3 times between meetings; this takes as much time and effort as it does to attend a regular meeting of the society, and the only way you can repay the members of the Committee for these extra efforts in your behalf is to show some appreciation by attending the fixed meetings of the society.

The Committee, as a whole, have been disappointed at the low percentage of attendance. This was especially noticeable at the extra meeting that was held on April 19, and that was an open meeting. At this meeting there were only 10 members present and 15 guests. This showed not only a lack of interest in the meeting on the part of the physicians but, judging from the small number of guests, it appears that the doctors didn't even take the trouble to let their patients and friends know about it. This was not only disappointing to the Committee but was embarrassing because they felt that, when they asked a man of such standing in the profession as Doctor Howard Taylor to give up his time and come all the way out here to address the Morris County Medical Society he should at least have an audience worth while addressing.

If it is because the subjects do not appeal to you or the meetings are arranged on the wrong day or the wrong time of the day we would like to know about it and in an effort to learn your opinion on the subject you will receive a letter from the Secretary in the near future asking for

suggestions. It has been suggested that each member of the society be asked to suggest what they would like for a program, and when your suggestions have been received the committee will group them and endeavor to put on a program that will be attractive to all of you.

For the past 3 regular meetings the attendance has been as follows: December, 28; March, 31; June, 27. Of this attendance, 13 have attended all three meetings; 11 have attended 2 meetings; 23 have attended only 1 meeting, and 26 members have missed all 3 meetings. On looking over the record of last year and multiplying the number of meetings by the number of men who attended, and calling the result in the term of efforts I find that there is a slight gain for the past year over the preceding year. In the past year the efforts summed up make 84, whereas the preceding year they amounted to 78. The difference is so small that it appears that there was about the same amount of interest taken this year as in the preceding year.

A brief review of the work of the year is as follows:

In December, 1926, 28 members were entertained by Doctor Howard Mason on the subject "Prophylaxis in Pediatrics". This was a highly instructive paper and I heard many of the men express their appreciation of it. In March we had our own interesting meeting, I say our own because we depend upon men from our own society to put on the program. At this meeting Drs. Costello, Williams, Mills and Young told us all they knew, and a lot more than most of us ever heard, about the "Toxemias of Pregnancy". For our June meeting, the committee thought that the meetings at Shongum had outgrown their interest and decided to put on another meeting of our own and this time turned it over to Drs. Mial, Matthews, Sutphen and Spencer, who gave us a most interesting program on "Middle Ear Diseases" with Doctor Mial doing the "Autopsies". In February we had the best meeting of the year. This was, as you know, a special meeting and we were entertained with a very interesting and instructive paper on "Goiter" by Dr. Goetsch, of the Long Island Hospital. At this meeting there were about 50 members and guests.

During the past year there has been one removed from our ranks by death, Doctor George Wilkinson.

President Conaway, of the State Society, was then presented and warmly received, saying, in part, that several weeks ago Dr. Lathrope, your secretary, while still in Paris wrote me a very kind letter inviting me to be here at this meeting; I accepted at once because I was anxious to be here. To me it seems one of the most pleasant duties to be privileged to attend meetings of the county societies. I confess I never was in this part of the state before; and what I saw driving over from Newark with Dr. Morrison has impressed me very much. I want to attend at least one meeting of each county society of the state this year. I suppose many of you are familiar with the activities of the State Medical Society, but some are important enough to bear repetition.

Insurance: the State Society provides group indemnity insurance and other kinds of insurance; a group health and accident insurance at so low a rate that many of you should take advantage of getting insurance in a first class company at such rates. Dr. Pinneo will be glad to take up the matter with you.

Speaking of the work of the State Society in cooperation with the State Board of Medical Examiners and the State Board of Health, Dr. Con-

away said he thought this year the State Society is more than ever ready to coöperate with these bodies. Speaking of the efforts to promote interest in Periodic Health Examinations, Dr. Conaway said that by this means the practice of the physician will increase and his practice will be more remunerative. He also spoke of the campaign of education that the State Society is carrying on; explaining the granting of an assistant to Dr. Reik and the expansion and value of his work, which justifies an assistant.

President Conaway continued by saying that another matter we have not paid enough attention to is that we have no home in the state for the Medical Society and no home for our records; that the Medical Society of the District of Columbia recently have finished a home at a cost of three or four hundred thousand dollars and their membership is one less than the membership of Essex County Society alone; that New Jersey is a great big state with a medical society of 2400 members—people enough and rich enough to have a home. We should have a home for the State Society to meet in and for sectional societies to meet in.

Speaking of immunizing children, Dr. Conaway reminded us that there were 4000 cases of diphtheria in New Jersey during the past 5 years and that this should be eliminated by immunization.

Another thing touched upon by Dr. Conaway was the Women's Auxiliaries; stating that there are 21 counties in the state and 14 now have Women's Auxiliaries; Morris County being one of the exceptions; reminding us that the auxiliaries are self-supporting, outlining the good they can accomplish and expressing the wish that this subject be considered; that he should like to be able to report next year "21 County Societies and 21 Women's Auxiliaries".

Recording Secretary Morrison was then presented and opened his remarks by saying that he had been Recording Secretary of the State Society for 3 years and for just 3 years he had been trying to get an invitation to attend a meeting of the Morris County Society; that Dr. Donohoe and he had attended a meeting of every County Society but two; Sussex and Morris.

Dr. Morrison said that this has been a very prolific year; work of importance has been carried on; reminded us of the importance of reading the transactions of the annual meeting of the State Society; that good, active, energetic work is being done; that the State Society has been born again in the last 2 or 3 years; that when we engaged Dr. Reik he was told it was a great big job and that in the past 2 years Dr. Reik has covered 20,000 miles within the state, attended 180 meetings of County Societies, Welfare meetings, Rotary, Kiwanis and other organizations; that Dr. Reik is doing all he can to spread the gospel to the public; that his assistant will spend most of her time in outlining to the Women's Auxiliaries how they can function to attain the best results and addressing Women's Clubs; and with the work of the Tuberculosis League and other organizations you will be shown how your wives can reach the public where you can't; there is no reason why Morris County should not have a Ladies' Auxiliary.

Referring to illegal practitioners, Dr. Morrison said there were 600 practitioners in the state not registered; expressing the belief that the time has come for New Jersey to adopt annual registration; that violations of the law should be taken care of by the state, including the driving out of all illegal practitioners of medicine; that there are 3000 or 4000 physicians in New Jersey who are not members in the society; explaining how they



come into South Jersey and North Jersey from bordering states; that there should be annual registration and this gone over and a card index made of the men legally entitled to practice; and that we need all who are eligible to become members in the society.

On the subject of revision of the Constitution and By-Laws, Dr. Morrison said a great deal of work has been done and the matter has been referred to a special committee; that these revised by-laws will be printed in the Journal this fall; and inviting any suggestions before the annual meeting next year.

On the subject of County Society meetings Dr. Morrison said it would be excellent to have some social meetings with the wives present; recommending 2 special meetings during the year and suggesting topics such as Medical Economics, Chiropractors, Annual Registration, Periodic Health Examinations and on the latter topic remarking that people are looking for it and it should be encouraged by the physician by making the examination when requested, instead of patting the man on the back and telling him he is all right, only to have him go elsewhere and have it done; that when a man comes for an examination what he really has in mind is periodic examination; further stating that for some reason there has been objection to the State Board of Education's employing doctors in the schools; that we find in this way diseases are discovered that never would be discovered if there were no doctors in public schools.

Dr. Morrison said further that three years ago Dr. Reik and he conceived the idea of bringing about a meeting with the officers of the State Societies of New York and Pennsylvania in order to get at the medical problem of the 3 states and compare experiences; that the first meeting was attended by 6; at the second meeting there were 12; and at the last meeting there were 30 in attendance; that these conferences have been of vast importance to the 3 states. Such problems were discussed as Workmen's Compensation, in which we were able to show advantages over the other states; Insurance, in which we showed how and where it could be obtained at lower rates than were paid in other states; the Nursing Problem, in which it was the opinion that we shall have to come to the plain nurse, having the hospitals give a two years' course and the doctors using these nurses; citing an attempt of the Registered Nurse's Organization to have adopted a resolution stipulating a 7 hour day at \$12 a day to attend more than one patient at a time in a household, meaning, for example, that if there were 2 children in the same home down with measles the same nurse could not attend both children; and exacting separate resting and sleeping provision, etc.; this being only an index of what the Registered Nurse's Union will try to do.

Concluding, Dr. Morrison said that if there were any topics that any one thought to be of advantage, he would be very glad to take them up; stating, "I can't urge you too strongly to throw your heart and soul into this County Society of yours. I never go to a medical society meeting or hear a paper read that I don't get something out of it; and the papers you write yourself make a better practitioner of you, and every paper you discuss makes you a better practitioner"; that the welfare of the Society means "Everlasting team work for every living soul".

The addresses and suggestions presented, both by President Conaway and Recording Secretary Morrison, were warmly received for their obvious value to the Society.

Retiring President Plume stood on safe ground when he said: "I am sure you all enjoyed listening to Dr. Conaway and Dr. Morrison and realize that they have opened up subjects for thought."

Dr. Glazebrook said: "We must see our shortcomings; there certainly is a lot to be done; certainly something for every medical man; I think it will be a great stimulation to us all and I hope our Secretary will see that the remarks we have heard here are spread through the county."

Superintendent Curry responded by saying: "I think this evening has shown us what a stimulation it is to have representatives of the State Society visit the County Society. I think we have been lax in not seeing to it that different representatives of the State Society have been at the county meetings, at least once a year and oftener if possible. I wish to take this opportunity of extending to Dr. Conaway and Dr. Morrison a very cordial invitation to come to this institution, especially during the day, so we can take you around the institution and give you some idea of this plant. I do not want to bore you but perhaps a few words may be proper. We have the largest institution in the state; we have at present somewhere over 3500 patients in the institution, 300 patients out on parole and about 800 employees. It is coming to the point where the State Society has got to take an active interest in the dependents of the state, for there are a number of questions coming up that are very vital. I know the question has been asked 'Where does your State Society stand on this question?' and I do feel that it is coming to the point where the officers of the State Society should know something of our institutions. I don't know, but I think, perhaps, Dr. Conaway and Dr. Morrison know Commissioner Ellis of the Department of Institutions and Agencies. He is very active for the welfare of the state and is doing some very excellent work. I bespeak for him that you try to do something for the dependents of the state."

Superintendent Curry closed by urging everyone to stay for supper which the institution had provided, this urge being liberally responded to with evident enjoyment in the partaking.

Secretary Lathrope responding, said: "I think I owe the Society an apology as well as Dr. Conaway and Dr. Morrison, in that they never before have attended one single meeting of this society; that was purely the fault of the Secretary of the Morris County Society and not of the society itself; I take that all on my own shoulders. I think when we take up the attendance of county meetings it brings up another question—why don't we have more members at the State Society meetings? I have attended a number of the state meetings during the past years and have always found there something of a very definite professional interest. We have had 8 or 10 members from this society down there, at most, I think."

On the question of program, Secretary Lathrope said: "It seems to me that right now is a proper time to make a suggestion or two as to the society program, while these gentlemen are at this meeting. I have wondered a number of times and I wondered particularly this year, whether there might not be a little more interest for a larger number of members if the section meeting plan were adopted. I think it could be done very easily by having a section in medicine, a section in surgery, etc.; say a half dozen meetings at every meeting at certain times and then some general meetings at which papers would be read by men from some of the large medical centers, and that sort of thing. I think, Mr. President, that there must be a number of men here who have an idea

about that sort of thing and about other matters regarding the State Society about which they ought to get up and speak."

Recording Secretary Morrison said that the State Society has discussed the question of dividing the meeting into sections but that they had the same trouble in the State Society that we have in the County Society; they have only about 300 physicians present out of 2400.

Treasurer Reed said: "I surely enjoyed the remarks of our guests. Early this year at two meetings I talked about more special meetings; most everyone I spoke to about more special meetings seemed to be very enthusiastic. I don't know how we could have had a more interesting meeting than that at Washington Hall, on "Cancer Control" by Dr. Howard Taylor and on "Periodic Health Examinations" with moving pictures, by Dr. Reik; but there were only 10 members present. What bothers me is how these members are interested in having more and better meetings theoretically when they don't make better use of them practically.

This annual meeting of the Society may be recorded as notable in having the distinguished presence of President Conaway and Recording Secretary Morrison of the State Society. The proceedings were obviously stimulated by their presence and it is hoped that the cordial reception they received will encourage them to return.

### OCEAN COUNTY

George W. Lawrence, M. D., Reporter.

Annual Meeting of the Ocean County Medical Society was held at Dr. Denniston's Sanatorium, Pt. Pleasant, New Jersey, October 26, 1927, being called to order at 4.15 by Vice-President Bunnell. Twelve members were present, and as guests Dr. W. P. Conaway, of Atlantic City, President of the State Medical Society; Dr. J. B. Morrison, of Newark, Recording Secretary of the State Medical Society; Dr. Henry O. Reik, Editor of the Journal of the Medical Society; and Dr. Davis, of Toms River, honorary member of the Society.

The order of business had to be changed about as the Secretary did not have his books and the minutes of the previous meeting were not obtainable.

A letter was presented from Dr. Leland E. Stillwell asking to be considered for election at this meeting. His application had previously been referred to the Credentials Committee and Dr. Jones, Chairman of that Committee, reported that no action had been taken. Later in the meeting a motion was made and carried that this matter would be considered at some future meeting.

Dr. Denniston reported that he was having trouble to get a license for a Sanatorium to care for insane patients, on account of some complaints being made by his neighbors. Upon his statement, which was corroborated by another member of the society, that his institution was conducted in a satisfactory manner, the society voted to endorse the Sanatorium and gave him permission to use this endorsement to help secure the license needed.

Dr. Conaway, President of the State Society, gave a resumé of the active work of the state society during the past year. He made special mention of the securing of all kinds of insurance for the members of the society at reduced rates. This consists of a group insurance of indemnity, carrying protection for as much as

\$75,000 per year at a very low rate to members in good standing in the State Society. Under another form is group insurance of life, health, and accident, at similar low rates, and in addition now all kinds of automobile insurance, which is not group but is obtainable by any member in good standing at a 20% reduction from the same rates usually given individuals. All these forms of insurance have been carefully surveyed by special committees and are in active use at a great saving by all those members who have secured it.

He also called attention to the forming of Woman's Auxiliary Societies which are now in active operation in 14 counties and will soon be in existence in 4 of the remaining counties, leaving only 3 counties in the state of New Jersey at this time which have not adopted the plan. The Ladies' Auxiliary is designed to consist of the wives of the members of the Medical Society, but may also be extended to the mothers or daughters where it seems advisable; this would permit practically every member being represented in the Auxiliary Society. This movement now has spread over a large part of the United States and has been very successful in moulding public interest in medical affairs and in medical societies concerning their contact with public affairs outside of the strict practice of medicine.

Dr. Conaway also mentioned the desirability of "Annual Registration" which will be presented to the Legislature at the coming session. Our adjoining states, Pennsylvania and New York, now having this form of registration has served to send many irregular practitioners into this state and for our own protection it would be advisable to adopt registration. It was desired that our society instruct our member of the Welfare Committee to assist in preparing and presenting a proper bill to the Legislature to be enacted as a law in conformity with our adjoining states.

He also mentioned the campaign which is being undertaken in regard to the control and stamping out of diphtheria by proper inoculation. This campaign is under way and when organized to the proper point is expected to be put over in New Jersey, and it is desired that all County Medical Societies cooperate with the State Society in organizing the campaign and also carrying out the actual work when the proper time comes.

Dr. Reik then made an address urging the society to increase the number of their meetings per year and explaining the reasons why. He also enlarged upon the points brought out by Dr. Conaway, explained more fully the formation of the Woman's Auxiliary, and volunteered to come and assist with the work if the county society endorsed the project and would make a convenient time for him to be with them. He also enlarged upon the campaign for diphtheria control and brought out more fully the question of health examinations. This is being taken up by the public and the State Society stands ready to assist the family doctor in developing this line of professional work. The State Society has a film which gives the proper routine of the examination, and also has forms which can be used for making records. He promised to meet the society at some future date and exhibit the film and show the literature which has been prepared for this special work.

Dr. Morrison, of Newark, then made a very fine address, calling attention to the "Transactions" of the 1927 meeting, held at Atlantic City, and published as a supplement to the August Journal, and also endorsed the statements previously made



by Drs. Conaway and Reik and explained the necessity of a new Constitution and By-Laws which has been taken up by the State Society and which will be presented for its first reading at the next annual meeting. This Constitution and By-Laws would increase the vote of the smaller county societies, making them of more importance than at the present time, and he urged that all the societies and individual members give the Constitution and By-Laws most careful consideration when it appears in the Journal so that they may be able to suggest corrections or improvements or any recommendations that they may deem necessary before final adoption, which could not, necessarily, be before the second annual meeting.

He advised the society to have one meeting during the year to consider public problems of medical character. He pointed out that the present physician has large obligations and duties outside of medicine proper, and suggested that one meeting a year be devoted to these problems which have a general interest for all people. Also one meeting to be devoted to the matter of medical economics, so that doctors can discuss and study their own problems of fees, expenses and financial returns.

He suggested also that each society develop one or two speakers who would be capable orators to talk before Public Service Societies of various kinds on problems concerning the public good, especially from the medical standpoint, and called attention likewise to the desirability of better newspaper publicity as an aid in establishing better relations with the public and in making the medical man of more importance to the general public.

After this very interesting talk, a rising vote of thanks was given these three visitors, and Dr. Davis, our honorary member, made a few remarks concerning the worth of the addresses and stated that in all the meetings he had attended during the long period of his years he had never heard better talks or anything more inspiring, and that in spite of the fact that he had lived a long life he wanted to be enrolled as one willing to go ahead with anything possible in developing these enlarged and new ideas.

The election of officers then resulted as follows: President, F. Bunnell, Barnegat; Vice-President, T. Thompson, Lakewood; Treasurer, F. Brouwer, Toms River; Secretary, A. Towbin, Lakewood; Reporter, G. W. Lawrence, Lakewood; Annual Delegate, H. B. Disbrow, Lakewood; Alternate, F. Bunnell, Barnegat; Member of Nominating Committee, H. B. Disbrow, Lakewood; Alternates, Jones, Toms River, and V. M. Disbrow, Lakewood.

A motion was made and carried that formation of a Woman's Auxiliary be endorsed and the secretary was authorized to call a special meeting for organizing during the latter part of November and also to view the film before mentioned; this meeting to be held in Lakewood.

A motion was also made and carried that Dr. H. B. Disbrow, member of the Welfare Committee, should support the Welfare Committee in favoring annual registration of physicians.

Sandwiches and coffee were furnished by Dr. Denniston, and a vote of thanks was extended to him for his hospitality. In addition to the rising vote of thanks given the State Society Officers it was moved and carried that the Secretary also write them a letter thanking them for their presence at the meeting and for the speeches that they made.

## SALEM COUNTY

William H. James, M. D., Reporter.

The Annual Meeting of the Salem County Medical Society was held October 12, at the Salem Memorial Hospital, being called to order by the President, Dr. David W. Green; Dr. William H. James acting as Secretary.

Dr. R. M. A. Davis presented a brief report of the recent meeting of the Welfare Committee of the State Society and requested action upon a proposition presented by the State Board of Medical Examiners to seek enactment of a law providing for the annual registration of physicians.

The Society voted approval of this proposition.

The reports of delegates to the Annual Convention of the State Society were presented by Drs. Summerill and James.

Following consideration of regular business, 2 very interesting papers were read; the first, dealing with cancer, by Dr. W. P. Glendon; the second, entitled "Bedside Diagnosis of Appendicitis", being presented by Dr. F. H. Church. The latter paper dealt with the difficulties in determining diagnosis before pain has become localized and rigidity of the right rectus muscle is established; indigestion, as an early symptom is often misleading, and gall-bladder disease may often be mistaken for appendicitis. The author advocated early operation as the safest procedure when diagnosis has once been made.

A lively discussion took place with reference to the administration of medicines in a suspected case; some advocating the use of castor oil, and others placing reliance upon the administration of morphin.

This being the annual meeting, election resulted in the choice of the following officers: President, R. M. A. Davis, Salem; Vice-President, William H. James, Pennsville; Secretary and Treasurer, David W. Green, Salem; Reporter, William H. James, Pennsville.

The following guests were present as delegates from other county societies: W. P. Glendon and John Moore, of Bridgeton; S. F. Ashcroft, of Mullica Hill; E. E. Downs, of Swedesboro; and S. T. Day, of Port Norris.

At the conclusion of the meeting, supper was served at the Hotel Johnson, and it was decided that the next meeting will be held December 13, at the Memorial Hospital.

## SOMERSET COUNTY

Lancelot Ely, M.D., Reporter

The Somerset County Medical Society held a very successful meeting on October 13, 1927, at the Raritan Valley Country Club, Somerville, New Jersey.

We were very pleased to have with us State Society President, Doctor Conaway, and Secretaries Reik and Morrison. They all gave addresses, Dr. Morrison being the chief speaker. They emphasized the work being resumed by the Welfare Committee and urged our committee society to endorse such activities.

The Women's Auxiliary of the society joined the dinner with the doctors.

## UNION COUNTY

Russell A. Shirrefs, M. D., Reporter.

The annual meeting, with election of officers, of the Union County Medical Society and the Women's Auxiliary, was held October 13, afternoon

and evening, at the Echo Lake Country Club, Westfield. A golf tournament for the men and a bridge party for the women preceded a joint dinner, after which the business sessions were held.

Dr. Frederick W. Sell, of Rahway, was chosen President of the Society and succeeds Dr. George Orton, also of Rahway. Other officers named are: Vice-President, Dr. A. F. Van Horn, of Plainfield; Secretary, Dr. George W. H. Horre; Treasurer, Dr. A. R. Hoover; Reporter, Dr. Russell A. Shirrefs, each of Elizabeth.

Twenty physicians teed off in the golf match and after 18 holes, 3 were tied with the low net score of 75. The prize, a box of golf balls, was divided among Dr. Irving Lerman and Dr. Edward Boller, of Elizabeth, and Dr. H. V. Hubbard, of Plainfield.

The dinner was attended by 42 men and women and the medical meeting in the later evening attracted about 100 members. There were 2 proposals for membership, referred for action at the next meeting, and 4 new members were enrolled: Dr. Harold Goldfield, of Elizabeth; Dr. C. A. Losada, of Summit; Dr. L. Y. Lippencott and Dr. Albert Strom, both of Plainfield.

An interesting feature of the evening was the report of Treasurer Hoover, which in addition to showing a sizable balance of cash in bank, indicated the growth of the Society from 164 members in 1925, to 186 at present. Best of all, this membership is 100% paid up! This, considering our large numbers, is almost a unique accomplishment.

Dr. J. B. Harrison of Westfield was named as the representative of the Society to the Nominating Committee of the State Medical Society. Dr. Charles H. Schlichter of Elizabeth was elected one of three censors. The other two who are holdover members are Dr. Norton L. Wilson of Elizabeth and Dr. B. Van D. Hedges of Plainfield. The three function as an executive committee and their duties include passing upon the professional qualifications of prospective members. They also try cases in which members are involved in any breach of ethics. Two permanent and seven annual delegates were chosen. The permanent delegates are Dr. Dennis R. McElhinney of Elizabeth, and Dr. George Orton of Rahway. The others are Dr. Emil Stein, Dr. A. R. Casilli, Dr. T. J. Walsh and Dr. George Seymour of Elizabeth; Dr. H. H. Boles of Summit, Dr. Frederick W. Sell of Rahway, and Dr. N. W. Currie of Plainfield.

The address of the evening was given by the retiring president, Dr. George Orton of Rahway, who spoke on "The Psychology of Medicine".

## WARREN COUNTY

F. A. Shimer, M. D., Reporter.

The annual meeting of the Warren County Medical Society was held at 11 a. m. at the Hotel Belvidere, New Jersey, on October 11, 1927, Vice-President G. Homer Bloom presiding. The minutes of the previous meeting were read and approved.

A committee consisting of Drs. Bossard, Allen and L. Bloom, to nominate officers for the ensuing year, was appointed by the chair; also an Auditing Committee, consisting of Drs. Shimer and Curtis, to audit the books of the treasurer.

There were no applications for membership. The Treasurer's Report showed a balance of \$18.41.

Mr. Schneider, representing Parke, Davis and Company, presented a moving picture, "How Biological Products are Made", which was very interesting and educational and was enjoyed by all present.

A communication was received from Dr. K. Winfield, Professor of Neuro-Surgery in the New York Polyclinic School and Hospital, offering to give an illustrated lecture on "Traumatic Lesions of the Nervous System" at one of our future meetings. This offer was appreciated and accepted by the society.

Our State Secretary, Dr. Morrison, was present and gave an interesting talk on welfare work, as did Dr. Lawrence Bloom, our representative to the State Society Welfare Committee. One hundred copies of the revised By-Laws were ordered printed and distributed to the members, the president and secretary constituting the committee in charge of this work.

The proposition for annual registration of physicians was acted upon favorably.

A committee consisting of the president, vice-president and secretary was instructed to get data from Dr. Henry O. Reik for the organization of a ladies' auxiliary to the county society.

The following officers were elected for the ensuing year: President, G. Homer Bloom, Phillipsburg; Vice-President, L. W. Hackett, Washington; Secretary, L. C. Osmun, Hackettstown; Treasurer, G. Cummins, Belvidere; Reporter, F. A. Shimer, Phillipsburg; Censor, A. C. Zuck, Washington; Delegate, R. B. Stone, Phillipsburg; Alternate, L. Bloom, Phillipsburg.

The members present at this meeting were Drs. G. H. Bloom, L. Bloom, Shimer, Cummins, Leffert, Curtis, Drake, Allen, Bossard, Smith, Tunnison, McKinstry, Dedrick, Osmun and Hackett. The annual dues were collected. Dinner was served in the main dining room, after which the meeting adjourned.

## TRICOUNTY MEDICAL ASSOCIATION (Morris-Sussex-Warren)

Marcus A. Curry, M.D., Reporter

The annual meeting of the Tricounty Medical Association was held in Morristown, in Day's Colonial Restaurant, on Tuesday, October 18, 1927, from 11 a. m. to nearly 3 p. m.

President Clifford Mills, of Morristown, presided over a rather gratifying gathering of 33 members, many of whom had driven through a storm, on none too safe roads, for considerable distances.

Secretary Charles B. Smith, of Washington, performed the functions of his office with complete satisfaction, and Treasurer F. W. Flagge, of Rockaway, was alert for the financial interests of the Association and reported a balance in three figures; the finance committee reporting that an audit of the Treasurer's books found them to be correct.

Election of officers resulted in the unanimous selection for the ensuing year: President, Arthur C. Zuck, of Washington; First Vice-President, Thomas C. Pooley, of Newton; Second Vice-President, George H. Lathrope, of Morristown; Secretary, Charles B. Smith, of Washington, re-elected; Treasurer, F. W. Flagge, of Rockaway, re-elected; Executive Committee, Blase Cole, of Newton; L. C. Osmun, of Hackettstown; and F. Grendon Reed, of Morristown, newly elected;



Finance Committee, Drs. Kice, of Wharton; Bloom, of Phillipsburg, and Voorhees, of Newton.

Six new members were unanimously elected to the Association; Dr. Ervin McElroy, of Rockaway; Dr. R. L. Gilbertson, of Madison; Dr. Byron G. Sherman, of Morristown; Dr. W. Blake Gibb, of Morristown; Dr. Eckert, of Madison; and Dr. Alvin Spencer, of Dover.

Routine business having been dispatched, the proceedings turned to the scientific side of the program, and Dr. Zuck read a very interesting paper on "Toxic Psychoses", at the close of which he stressed that many of these cases should be cared for at home or in a General Hospital. (The paper has been made available for later publication in the Journal)

Dr. Pooley was expected to read a paper but it was announced in his behalf that he was married only one week ago, and said that if he were not present at the meeting, that would be the reason. Dr. Pooley was not present; the reason was permitted to stand and his absence excused.

Dr. Lathrope addressed the meeting on the subject of "Abdominal Pain Due to Chest Conditions". He prefaced his discussion by saying that he thought it better to submit 3 case reports and do the whole thing informally; that it was not an effort to cover the subject of abdominal pain from any chest conditions but just as they appear in these 3 cases; conditions that are met with in the experience of everybody present at one time or another; the cases all have a pathology in the chest but they have in common the factors of abdominal pain and mistaken diagnosis; in 2 of them the mistaken diagnosis ended in surgery that was needless; in the third case surgery was employed which may or may not have been required; a situation which is extremely important to all of us.

The first case was that of a small boy aged about six years, who woke up one morning feeling perfectly well until about eleven o'clock, when he developed headache and vomiting; he was evidently ill and was put to bed; about one o'clock he was complaining of abdominal pains; he was seen at three o'clock in the afternoon at which time the temperature was 103.8°, pulse a little over 100 and respirations 24; and there were other evidences of his being distinctly sick; his father was and is attending surgeon in one of the large hospitals in New York. There was much concern as to whether it was or was not acute appendicitis. Dr. Downs, of St. Luke's Hospital, was called and came out in the evening; in the meantime the boy had been taken to a hospital, his temperature was 100°, pulse 110, and respirations not particularly high; the abdominal and chest situations remained the same; the chest was entirely negative and the abdominal symptoms were there. The question of operation was what had to be decided. Questions of the father as to whether it could be said with fair certainty that the boy had acute appendicitis or whether he had pneumonia, being answered negatively, the decision was that all would rest more easily that night if the abdomen were looked into; the appendix was taken out by Dr. Downs, and found slightly congested but there was not enough evidence to allow anybody to feel for a moment that it was the full explanation of the child's symptoms. Next morning consolidation of the lung was found; the boy had pneumonia and recovered.

This was a case with negative chest at the onset of pneumonia, with pain and other symp-

toms referable to the abdomen to such an extent to make diagnosis uncertain.

Case No. 2 was in a man of 38 years, a machinist, who came into the doctor's office walking with considerable difficulty and the first impression was some trouble with his knees and feet; he came with a man who knew nothing about him and who only came because the patient needed help. He had stopped work a month previously and prior to that felt badly for a month; with pains that seemed definitely referable to the joints; as to tuberculosis there were no symptoms; he had lost weight and was anemic; there were physical signs which pointed entirely to his upper abdomen. There was pain after meals and more or less abdominal pain all the time. He could not or did not straighten himself up at all. A possible explanation of the case was a slowly perforating gastric ulcer. He entered the Paterson General Hospital, where he was operated on and the upper abdomen explored and found to be negative; the point made was that the abdominal symptoms were entirely misleading and those symptoms persisted while the man was in the hospital to such an extent that the original idea for an exploratory operation was supported. The abdominal pain, however, was due to heart conditions. This was a case of septic endocarditis right from the beginning, running a subacute course and exhibiting signs of abdominal symptoms sufficient to warrant an exploratory laparotomy.

Case No. 3 differed from the others in that it was a chronic case from start to finish; there were periods of considerable disturbance from indigestion, some pain in the abdomen, but without any symptoms referable to the organs above the diaphragm; the abdominal examination was virtually negative. The chief complaints at this time were just what they had been for 6 years, indigestion and a great deal of flatulence; there was pain 2 or 3 hours after meals when the stomach was beginning to be empty. Being directed by a few rôles, a picture of the chest was taken and there was found definite evidence of tuberculosis at both apices. The whole thing was quite upsetting and left you without any symptoms that you were dealing with an individual who had tuberculosis of the lung in active or subactive form. This was a case with abdominal symptoms of a toxic type from disease coming on in the lung tissue.

Dr. Lathrope's presentation of the three cases was exhaustive in detail and clearly brought out the necessity for diagnostic caution.

The discussion of Dr. Lathrope's informal presentation was widely taken up and there was uncommon interest manifested in the cases so lucidly submitted for thought, consideration and guidance. Those taking part in the discussion were Drs. Mills, Smith, Reed, Flagge, Larson, Roberts, Bossard, Glazebrook, Costello, Horn; some presenting similar difficult diagnostic problems encountered and others asking questions which were readily answered by Dr. Lathrope.

The scientific features of the meeting coming to a close, a splendid luncheon was next in order and greatly enjoyed.

#### It Positively Isn't Done

"Baby's getting on wonderfully—I'm sure she'll be able to walk soon."

"D'you think it's worth the trouble of teaching her—hardly anybody walks much nowadays."—Everybody's Weekly.

## ATTENTION COUNTY SOCIETY SECRETARIES

(As an outcome of the conference of county society secretaries and reporters, held at Atlantic City during the annual meeting of the State Medical Society, one of the reporters who participated in that event has sent us an outline of the work planned by his own county for the present fiscal year. His letter contains so many suggestions worthy of consideration by secretaries and program committees of other organizations, that we have decided to publish it in full, hoping it will prove helpful to those upon whom falls the task of keeping a county society alive and active.—Ed.)

### This Year's County Society Program

Spencer T. Snedecor, M. D., Reporter for  
Bergen County.

At the luncheon to the county secretaries and reporters given by the retiring president, Dr. James S. Green, many suggestions toward the promotion of successful county society meetings were made. Some of those ideas we have already adopted in Bergen County, others we have gathered by thus hearing about our neighbors' enthusiastic meetings.

The presence of a large proportion of the membership at a meeting is direct assurance of its success. The problem then is how to attract the tired practitioner to the meeting. There are 2 ways. First, promote the meetings as a sense of duty that every man owes to his profession. Add this with a promise of meeting one's friends and spending a social evening. We should never underestimate the value of friendships. Doctors are peculiarly individualistic, sensitive and difficult to organize into a coöperative unit. Therefore with a second purpose we should stress the social opportunities of our meetings. In a definite way some societies precede each meeting with a dinner. Every group might at least hold an annual dinner in the fall of the year in honor of the retiring members. Ours is always a big success. When spring time comes, an annual outing, such as an afternoon at the seashore, a clambake or a barbecue, to which the woman's auxiliary is also invited, will bring forth a large attendance.

The remaining meetings of the year may be devoted to scientific purposes. Such an object places heavy burden upon the committee to arrange a program which will hold the interest of a physician after his evening office hours. When the listener falls asleep or leaves the room the speaker of the evening has not "gotten across". On the whole, outside speakers, men of outstanding ability, will arouse greater interest than local men, but the committee must also consider carefully the subject of the evening. No matter how much original work the speaker may have done along some one line his speech should be in the nature of an address covering a broad field of medicine or mentioning the newer tendencies in his specialty and how they effect the general practitioner. As illustration of the proper type of talks one may review the weekly "Practical Lecture Series", sponsored by the King's County Medical Society and also by the Academy of Medicine of New York. Topical examples are "Toxemia of

Pregnancy", "Heart Disease in Childhood", "Aids in Diagnosis in Acute Abdominal Conditions", "Modern Treatment of Skin Diseases".

Local speakers should frequently be given a place on the programs. Men doing exceptional work in some specialty are to be found in every county society. Furthermore, local hospital groups may entertain with striking programs. In Bergen County the society has held meetings during the past year in the 4 hospitals—Bergen Pines, Englewood, Holy Name and Hackensack Hospital. Each hospital staff has presented an attractive program.

An additional service of the county society must be the promotion of postgraduate teaching. The monthly meeting offers a practical opening for instructive clinical material. For instance, while visiting the contagious hospital might not the program cover tuberculosis or scarlet fever, subjects of ever recurring interest. "Fractures" could be put across at one of the hospitals. Particularly the meetings held in the local hospitals should be featured by clinical material. The demonstration of cases, not rare cases, but those illustrating the diagnosis and treatment of common diseases are always well received.

Sometime during the year a profitable evening can be spent on health problems, as for example: (1) Eradication of Diphtheria; (2) Periodic Health Examinations; (3) Water Supply; and so forth.

The procedure of a meeting is often dull and procrastinating because of the lengthy consideration of small details. A practical suggestion to eliminate the reading of local communications and bills and for the transaction of small business has been successfully demonstrated in several societies by the election of an executive committee, consisting of the officers and 2 or 3 other members, whose duty it is to meet before the regular sessions and transact all routine business. Such a committee may cut down the business session of the general body to 15 minutes.

Another challenge in the society meeting, is active committees. The public relations committee should always have a live report. A timely topics for them to discuss is: The nursing problem, the supply of trained nurses, group nursing and hourly nursing, practical nurses.

Compensation or industrial medicine calls for the attention of the county society. Many physicians are continually finding difficulty in their industrial cases, in making out reports and collecting their fees.

Has your society a library? What is the nearest reference source for your members?

As a last thought, a medical society can best represent the medical opinion of the county if its membership comprises 100% of the eligible physicians.

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### The Little Gray Hole in My Vest

There's a little gray hole in my vest.  
It happened the place that was best.  
For a hole in the coat or a hole in the pants  
Are both of the kind you can see at a glance,  
But you always can button your coat,  
And hide all defects in the vest.  
So here's to the moth with such knowledge of cloth,  
Such insight is rare in a pest.

—Yale Record



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## SYMPOSIUM ON SYPHILIS

(The following 5 papers were presented in symposium at the 161st Annual Meeting of the Medical Society of New Jersey, at Haddon Hall, Atlantic City, June 9, 1927.)

### PHYSICAL EXAMINATION IN THE DIAGNOSIS AND MANAGEMENT OF SYPHILIS

JOHN H. STOKES, M.D.,

Professor of Dermatology and Syphilology, Medical School of the University of Pennsylvania,  
Philadelphia, Pa.

I find myself today taking up a topic which I fear many of you will regard as trite, and one on which I have encountered enough extremes of opinion to make me feel that I may be bringing coals to Newcastle in singling out for the opening of this symposium the physical examination of the patient with syphilis. Frank Billings, father of internal medicine in the Middle West, has been insistent of late years, that the practicing physician does not examine enough or with sufficient particularity. On the other hand, one of the ablest syphilologists of the country, in reading the proof of my book on modern syphilology, lamented the fact that I had chosen to give more than 20 pages of text and illustrations to the technic of examining a patient for syphilis by purely physical methods, in preference to inserting a corresponding amount of bibliography which would have been chiefly of use to specialists. I took that stand as a result of two kinds of experience, covering now

more than a decade. On the one hand, I have had to watch, detect and correct, as a member of a large medical organization, the mistakes in dealing with syphilis which come from not seeing, feeling or hearing what is there to be seen, felt and heard. On the other hand, I have passed in my professional experience from a period in which I saw, heard and felt for myself, through one in which I saw, heard and felt largely through others, and then back into one in which I have again seen, heard and felt for myself; while at the same time, as a medical teacher, I have supervised the same method of acquiring knowledge in others. From this rather variegated career, I cannot but draw the lesson of the incomparable worth of the thorough-going examination of the person of the syphilitic patient by the physician who is to advise or treat him. It is the outstanding weakness of all specialism and of hurried, harrassed general practice, that it cannot envisage the patient as a whole, or any longer know him as a human being. No weakness is more fatal than this particular one, in the management of the patient with syphilis; for diagnosis is often a matter of easily overlooked signs, tucked away in odd corners of the body; the progress of the case into the most crippling disabilities can only be checked by one who knows his physical signs; and, the whole course of treatment may be modified by some small but clear-cut warning displayed where it is seeable but never seen.

It is not therefore, I ask you to believe, with any spirit of supercilious criticism or arrogant superiority that I point out to you

diagnostic mistakes that come from inadequate physical examination. It is rather from the depths of painful personal experience, as a fellow-practitioner who finds it as hard as you do, to expend upon a single patient the 40 minutes or more that a purely objective physical survey of his body requires. In urging better physical examinations by those who deal with syphilis—and what one of us does not—I am urging them upon myself.

The physical signs of the syphilitic patient vary in importance from period to period in the course of the disease, and it is as proper to emphasize those occasions in which they are of negative value as to dwell on their positive efficiency. The shortcomings of physical diagnosis are mainly in a period of high preventive importance—that of asymptomatic latency, in which, as you know, the degenerative changes that lead to late syphilis are in their full formative period. In a sense, therefore, physical diagnosis is always a little too late in that it deals with evidence of damage in the form of scars. There is no way that I know of to make up this lack except through the routinization of laboratory methods for detecting the disease in the young patient, when the efficiency of serologic tests on the blood is highest and the spinal fluid shows evidence of the disease in advance of the appearance of any degenerative change. The fact that treatment rapidly reduces the average infection nowadays to a state of symptomless invisibility makes it doubly necessary to be zealous in universalizing the use of serologic tests for syphilis as a part of every medical examination. At the same time, the fact that a patient may even during a period of Wassermann negativity, pass, with no other warning than the slow development of physical signs, into the gravest complications of cardiovascular and neurosyphilis, makes it again doubly necessary to insist upon observation that does more than merely take a blood test. Then periodic observational re-check of the patient who has had syphilis, should from the first year on, be based not merely on laboratory tests, but upon a careful physical examination. This physical examination should stress the inspection of 2 often overlooked

sites—the mucous membranes and the anus and genitalia—and it should concentrate upon the heart and aorta and the pupils of the eyes. The mucous surfaces are the sites of infectious recurrence, and the aorta and the base of the brain are the 2 least covered weak spots in our modern therapeutic program for syphilis.

Before going further, let me describe the conditions of the physical examination about which I am talking. My students occasionally get a good deal of fun out of my insistence that the only way to examine a patient with syphilis is with all his clothes *off*, and by a good north daylight. The office of the would-be syphilologist should consist of a galaxy of little rooms, each with its big window, for this combination is indispensable to a high average efficiency in dealing with the disease. It is entirely possible, with the aid of a few clean sheets, to protect the fundamental modesties by serial exposure, so to speak, covering one area as you uncover another. The necessary equipment in addition to an alert attention, includes the stethoscope, flash lamp, low magnification lens (5 diameters), sphygmomanometers, reflex hammer, the C64 tuning fork, and the pin. I hope I am not talking down to at least some of you, for I often have to run for one or other of these implements myself in the midst of an examination hurriedly begun. Without these tools you cannot make a modern examination of the patient with actual or suspected syphilis.

The conditions now being set for examination, let us return to one or two further reflections on its merits as a procedure. Just as it cannot replace the laboratory in latency but is an indispensable adjunct to it, so in early syphilis, and especially the primary stage, it has only suggestive and not diagnostic value. The diagnosis of chancre nowadays is made by laboratory evidence, and a dark-field examination and repeated Wassermann or Kahn tests, but always the former, are routine essentials. It is, I am convinced, a mistake to believe that the chancre has any standard physical characteristics by which a diagnosis can be made. Every genital lesion in a person who has been exposed to a mucosal



contact, calls for a routine follow-up for syphilis, and no diagnosis of chancroid should be closed until 4 months after appearance of the lesion, with the patient continuously Wassermann negative throughout this time. I would like to imitate the French in stressing to you the relatively frequent absence of a recognizable chancre. There may be none at all in animals, and conceivably so in man, especially in mucosal inoculations. Gonorrhea masks the onset of syphilis in 12 to 20% of patients, so that a serologic follow-up of all gonorrheics should become the practice of urologists. The extragenital chancre is much more common than is supposed, especially on lip and tongue and in the throat, and contrary to general belief, it may be anything but a large saucer-shaped ulcer. It may resemble a mucous patch or a benign erosion.

What physical signs then are of value in the diagnosis of chancre? Indolence or refusal to heal; induration; and enlargement of the regional lymph nodes or satellite bubo, form a triad which, if universally appreciated, would direct suspicion many times to an otherwise overlooked goal. All the other 7 signs of the chancre are chronic reversibles, so to speak. These three while sometimes reversible are the most trustworthy when present. Their absence means nothing whatever. Of the three, I, like Ricord, would stress the bubo. If every large solitary lymph node were traced to its source, syphilis would lose one of its strong holds of concealment. As Audrey and Chatelet have pointed out, the bubo may be the whole chancre itself, and there may be no recognizable reaction at the point of entry.

What physical diagnosis considerations apply to the secondary eruptive stage? First, most secondary eruptions are difficult to see, the text-books of dermatology to the contrary notwithstanding. Specialists who see suspicious lesions in the mouth, should insist on stripping the body. They will spare themselves and their patients delays, mistakes and risks of infection. In examining a patient for secondaries, put him cross-wise to the light, and stand off 5 or 6 feet. Macular secondaries are often invisible to the peering ex-

aminer. Macular, maculopapular and follicular eruptions, all easily overlooked, make up 85% of secondary eruptions. Learn to recognize axial distribution of lesions in the lines of cleavage, which is characteristic of pityriasis rosea. The amount of pityriasis rosea which is annually started on treatment for syphilis, must make angels weep. Suspect the annular lesion as being something more than ringworm or chronic hives, and take a blood test. The general and especially the visible adenopathy in the neck, seen by cross light, is a valuable clue. Do not expect to recognize alopecia in long hair by its moth-eaten appearance. Learn to see eyebrows. Alopecia of an eyebrow must always be explained, and nothing is harder to see in a routine physical examination. Actually look at the anus, and put the tissues there and about the vaginal introitus on a stretch, for mucous patches and condylomas hide in folds, and give doctors extragenital chancres. Never minimize a papule in the palm of the hand or on the sole of the foot. Do not call it "slow small-pox", or "callus", or "anesthetic rash". Palmar papules are always something important, and seldom "eczema". I do not urge these things upon you from the glorious abstract, but from bitter experience. I missed an anus in examination the other day and spent half a night in self-reproach, only to find, happily next day, that there was nothing there. All the evidence was on the boy's lower lip, and even then I misinterpreted it and was only rescued by a routine Wassermann.

Examination of the surface of the body for relapse is of vital importance. The mere repetition of the blood test may fail one entirely, and the examiner may be humiliated as I have been, by having a patient whom I was about to discharge as cured, ask me about a sore spot in his mouth—a mucous patch that I had overlooked, through relying on a negative Wassermann—not one, but 6 Wassermans, in a provocative series. If it were possible to turn the mouth and throat inside out like a purse, I do believe that syphilis there could still elude us now and then. Never overlook the height of the palatal arch and any signs of edema of either palate or sep-

tum, for a probe may go right through. Anterior perforations of the palate are easily missed. And let me caution you that upon the tongue especially, one can be too syphilis-conscious, and let a carcinoma progress to inoperability merely because the patient has a positive Wassermann or Kahn.

Unfurl the back of the scrotum in every medical examination, but especially in a treated syphilitic patient. Annular scrotal recurrence is one of the priceless guides to relapse in the early years, in patients who have been irregular in treatment or who periodically express in acts of bibulous exuberance their disapproval of the eighteenth amendment. See the whole front of the scrotum and the shaft, but never omit the back and never forget to put it on the stretch, for an annular syphilid may be invisible among the rugae.

#### THE PHYSICAL EXAMINATION IN LATE SYPHILIS

Whereas perhaps 80% of diagnosis in early and latent syphilis is made by the laboratory or confirmed by it after detection of suspicion-arousing lesions, a proportion of 60% is more nearly accurate for late syphilis, leaving 40% more or less inevitably dependent for recognition on the thoroughness of the physical examination. Physical examination is most crucial in the early detection of aortic changes, though symptoms must be inquired into here as carefully as signs. Pupillary changes to which I have referred should be thought of as late evidence from the preventive standpoint. The physician who has had a patient under control since the beginning of his infection, should consider himself rebuked by the finding of pupillary changes which he did not anticipate by spinal fluid examination when the patient was first placed on a prolonged rest period. The aim in every patient with syphilis should be to establish as early in the disease as possible, his base-line normal so to speak, so that departures from it can be early recognized and interpreted. In doing this, graphic methods, or a mensuration scale such as the 1-2-3-4 of the Mayo Clinic, are a great help in clarity of record, though they do not do away with the

desirability of having the same examiner for each successive check-up.

In the limited time at my disposal it is only possible for me to sketch a summary of some of the details I have found most useful in my personal study of syphilis. Pounce early upon the patient's aortic second sound, and begin to watch it and the left border of his heart, from the end of the first year of his infection on. Compare it with  $P_2$  and rely less upon murmur than upon change in quality, with the development of the tambour ring or drum-tap sound that is the earliest sign of aortic disease. You will be shocked every so often to see your cured patients develop syphilitic aortitis out of what you thought was a clear sky and with a negative Wassermann. When you resume treatment, you may recognize the diagnostic paradox of development of a systolic and perhaps also a diastolic murmur from healing changes in the valves. It is not my task to stress symptoms here, but never fail to make careful inquiry at every examination as to precordial stress or pain, and paroxysmal dyspnea, especially nocturnal, for these may precede any outspoken early sign. A slight but repeatedly recognized rise in blood pressure in a young person with a history of syphilis should put one on his guard. By the fifth year he may have a definite aortitis. Do not accept x-ray examination of the chest, important as it is, as a substitute for physical diagnosis, for the changes it shows are later than those an acute observer can detect by auscultation and percussion. And let me add that when your percussion has detected retrosternal dullness, do not accept the roentgenologist's diagnosis of mediastinal tumor as excluding aneurysm, nor yet even the absence of pulsation under the fluoroscope. Early aneurysms, especially, may be incarcerated in the mediastinal infiltration of a syphilitic process, and show no pulsation until after 5 or 6 weeks of a therapeutic test. Have confidence enough in the physical diagnosis of cardiovascular disease to subject more young persons, especially, with suspicious signs but indefinite histories or negative blood findings, to therapeutic test, and be less ready to rest on rheumatism, that most-abused catch-bas-



ket of medical practice, as a sole explanation. You may expect from 20 to 40% of progressing cardiovascular syphilis to be Wassermann negative.

In dealing with the fellow-in-infamy of cardiovascular syphilis—involvement of the nervous system—never make a physical examination without studying the pupils, which are the key to the largest symptomatic areas of neurosyphilis. In studying pupils, have the patient face the light, for a strong light from one side produces false inequalities. Do not conclude that fixed pupils are necessarily Argyll-Robertson. I recently saw a patient in whom this mistake had been made at one of the foremost clinics of Europe. A five-diameter lens, which showed the pigmentary changes and loss of definition of the iris fibrils and the irregularity of the synechial adhesions, sequels of an iritis many years antedating the syphilis, changed the whole medical complexion of the case. You would be amazed to know that among railroad men 8 years ago, 65% of those who had syphilis had pupillary signs of it, entirely unrecognized, though their eyes had been repeatedly examined by specially trained examiners for years. The trouble was that their emphasis was all on color vision and visual acuity, and syphilis went right past them to be the underlying cause of wreck after wreck. I even have in my clientele a railroad eye examiner who had grossly unequal Argyll-Robertson pupils and did not know it. May I be pardoned then, for urging so seemingly commonplace a thing upon you?

In checking reflexes, it is important to estimate the general tone of the reflex mechanism, and never to call a reflex totally absent unless it does not respond to reinforcement. A hypotonia can only be judged in the light of all the reflexes and a uniform diminution. Never fail to take the Achilles as well as the knee jerk. In doing this be sure to have the patient comfortably kneeling, for I have known it to be completely veiled by a strained attitude. The cremasteric and umbilical reflexes should never be omitted for they are valuable guides to early involvement in neurosyphilis. In doing pin tests for pain sensa-

tion, watch that the patient does not respond to differing degrees of pressure rather than to actual pain sensation in calling out "sharp" or "dull". Remember, too, to ask a patient if he has been practicing such a test as the Romberg, for many of them do. The bone fork is a useful instrument but its normals must be learned by experience. In testing for anesthesia do not forget the circumanal region, and never forget to compare the center of a cutaneous lesion with the periphery and surrounding skin before making a diagnosis of neurosyphilid. I recently saw a patient presented before a national society, in which failure to do this test and to feel the ulnar nerve, humiliated the presenter by his failure to recognize leprosy with a positive Wassermann under the guise of syphilis, by simple neurologic signs. I could go on thus almost endlessly commenting on point after point in the vital problem of recognizing early and therefore more treatable neurosyphilis, but time presses.

In dealing with the bones in syphilis, accept the fundamental maxim, over the heads of all physical diagnostic principles, of having a blood test for syphilis on every bone and joint case whether or not you suspect the disease. Then proceed to utilize the tibia to the full in physical diagnosis. Do not merely pass the fingers over the anterior edge, over-emphasizing roughness or serration. Feel for fusiform thickening of the middle third by passing the bone between the thumb and first two fingers (Morton Smith's maneuver) and feel for rounding of the anterior face as well as anterior bowing, with the flats of the fingers or hand. In every inspection of the patient it is wise to compare the size of individual bones with the frame as a whole, and to recognize the heavy clavicle of the prenatal infection as a suspicion-arouser. Double swollen knees should not be put in casts without Wassermann testing, for they may be Clutton's joints; and above all, they should not be aspirated until the pupils are examined. If this maxim could find currency, together with the pupillary examination before all abdominal operations and before any hypodermic of morphin is given to a patient with

abdominal pain, neurosyphilis might almost cease to be the present-day Waterloo of the surgeon and the source of many recruits to morphinism. From the abdominal and osseous manifestations of tabes, no Wassermann can save us, for both blood and spinal fluid are too often negative, and diagnosis lies only in the physical signs.

As a dermato-syphilologist, I should perhaps give consideration, or at least an after-thought, to skin lesions in late syphilis. Physical diagnosis in dermatology is none too well developed, and treatment and the universalization of serologic tests are doing away, not with early syphilis, as some suppose, but with the beauties and treasures of cutaneous late syphilis. Fifty years from now, our slogan of indolence, induration, arc, will have lost much of its meaning. But while it still has meaning, let me emphasize to you that whenever you see lesions that produce scars on the skin, they must be explained, and that they cannot be explained by resort to diagnosis of eczema and psoriasis, which never produce scars. Right in my own clinic, my most astute men fall afoul of this point. A lesion which is fleshy, which has body, which is more below the skin than above it, which offers deep resistance to the palpating finger, is a granuloma and may be a syphiloma. Never minimize a lesion which in its general outlines, or in the outline of individual lesions, is composed of arcs and segment of circles, for the arc is the sign manual of syphilis on the skin though, like all signs, it may fail. The thin, atrophic, wrinkling, soft and non-deforming scar with a fine dark line of pigment around it, especially if it preserve the arciform outline of the original lesion, is suspect. The leg ulcer off the beaten stasis track is suspect, especially if it be high on the leg and to the outer side, and surrounded by a skin which does not show the edema, pigmentation and fibrosis of chronic impaired circulation.

A rapid-fire talk like this is sure to leave much unsaid that should be said, and to say something in the tone of dogmatic assertion which would better have been qualified or left unsaid. In proportion as I have offended in

these ways, you will I know, be forgiving, and will overlook my sometimes officious positivism in what I hope will be a perpetuated interest in the physical diagnosis of syphilis, properly applied in time and place.

## DISCUSSION.

**Dr. H. J. F. Wallhauser (Newark):** I want to express my thanks to Professor Stokes for his very interesting and instructive presentation of the subject before us. He has covered the ground so thoroughly and in such detail that there is very little to add, yet I would like to stress one point that he made in diagnosis, namely, that the entire skin surface should be observed by the removal of all clothing, because, occasionally, even when a negative Wassermann would seem to warrant the absence of syphilis, some slight indication may be present on the skin. The skin lesions of syphilis are usually not difficult of recognition, especially the late manifestations which Professor Stokes has so well demonstrated as being circular or serpiginous in outline. In selecting a donor for transfusion it would be a good policy to follow, that unless the skin is absolutely free of skin lesions the donor should not be accepted. The following cases would seem to warrant this view:

**Case 1.** While making hospital rounds recently, I was asked to see a patient for what was considered a trivial skin eruption. The patient was a female, aged 62, who had been confined to bed for several months. The diagnosis was pernicious anemia, for which she had received 3 transfusions. The eruption proved to be a maculopapular syphilid, and a negative Wassermann had been obtained in the examination of the donor. On having her brought in for inspection, she proved a well nourished, apparently healthy woman, yet on careful examination a circular nodular scaly lesion of the palm was found, which easily established the diagnosis of syphilis.

**Case 2.** A private patient in whom a negative serum reaction in the donor was relied on to exclude syphilis. This patient, also a case of pernicious anemia, developed a maculopapular syphilid shortly after the first transfusion. Examination of the donor in this case showed a serpiginous syphilide over the lumbar region.

**Dr. Arthur J. Casselman (Camden):** None of us has had the vast experience of Dr. Stokes, so it is not well to overemphasize the necessity for physical findings in the diagnosis of syphilis. That is to say, we must rely on the Wassermann reaction to a large extent. We should do more routine Wassermans, as routine Wassermans will teach us clinical syphilis. We should have a Wassermann on every patient. When we find a positive or suggestive Wassermann, we should strip the patient and look for some of the physical signs of syphilis, which we will find in many cases at first and more frequently as we acquire experience. We have not had the experience of Dr. Stokes, but we can absorb some from his book. He could not put all his experience in his book, but we can learn much about clinical syphilis by studying his "Modern Clinical Syphilology".

Much evidence is needed to diagnose syphilis in the face of a negative Wassermann, when the Wassermann is done with a modern sensitive technic. Dr. Stokes sees many of the rare and unusual cases; of course he sees the other kind,



too, but he sees more than the usual run of cases of clinical syphilis with negative Wassermanns. We will not see as much syphilis with a negative Wassermann as Dr. Stokes does, because he gets a greater proportion of that type and because his diagnostic vision has been more highly trained. Some of us will, however, rarely meet a case of untreated syphilis with a negative Wassermann if we look far enough and long enough. The statistics of negative Wassermanns in untreated syphilis in the past are wrong because most of the Wassermanns made up to 5 years ago were quite poor. We do much more sensitive Wassermanns now. Even the state laboratory Wassermanns in New Jersey are much more sensitive than the majority of Wassermanns were 5 years ago. The state laboratory some years ago started to use cholesterolized antigens with icebox fixation and missed a much smaller number than did the old Wassermann. The state laboratory cannot use the most sensitive method on account of the specimens being too long in the mails and becoming anticomplementary. If we make our state tests too sensitive we are going to get a lot of anticomplementary reactions and have to request too many supplementary specimens of blood. We must use a Wassermann test which is practical in the state laboratory. Some of the laboratories close at hand can use a much more sensitive Wassermann.

When you find a positive Wassermann, always have a second test made. Don't trust any single report, whether it is positive or negative. A hospital with which I am connected has a routine which is carried out without the request of the physician. As soon as any Wassermann is found positive, a second one is automatically taken by the technician. If it is doubtful, at least 3 are taken. Any doubtful Wassermann requires further study. It should not be considered diagnostic.

**Dr. Hyman I. Goldstein (Camden):** I cannot resist the temptation to rise and express my personal appreciation for this most excellent presentation. I know most of you here have been thrilled, as I have been, in listening to this really brilliant exposition, but I am sure that Dr. Stokes feels as I do that if we don't go back home and at least strip our patient, irrespective of whether we suspect syphilis or not, we will not be doing the job right. That has been the fault of all of us in the past, i.e. failure to make complete physical examination (with clothes removed) of all of our patients.

Of course, it is important to realize that we can't handle 10 or 20 patients during our regular office hours if we are going to have 2 or 3 new patients that require these examinations, but I think in the long run it will certainly pay us to strip these patients, and go over them carefully.

Let us internists not be disheartened entirely by the fact that nearly all these cardiovascular conditions that Dr. Stokes spoke about have been due to syphilis. Dr. Stokes emphasized very strongly the accentuated aortic second sound ( $A_2$  plus), particularly in young individuals, as being due to syphilis. Let us not forget that during the past decade or so, since we have become more proficient in really knowing what rheumatism is, that in the children and young adults we have now been seeing much more aortic disease that is due to true rheumatism than we have in the past. I have on several occasions seen patients that have been suspected of having syphilis simply because our most excellent syphilologists have told us that aortic regurgitation means

syphilis, even with negative blood Wassermann tests. If you get an aortic disease in children, think first of rheumatism and try to set that case aside at least as a "charitable act", if nothing else, to the internist's realm of therapy.

The exposition was one that we must accept with considerable serious thought. It appears to me that while Dr. Wallhauser suggested these cases be turned over to the department of internal medicine in the hospitals, I think in Dr. Stokes' clinic and elsewhere it is the internists who are turning over all cases of syphilis, including neurosyphilis and visceral disease, irrespective of whether they have skin lesions or not to the department of "syphilology and dermatology". I don't think it is the modern idea to scatter these cases about to various departments or clinics, such as those of internal medicine, urology, gynecology, pediatrics and neurology.

**Dr. I. Lehman (Elizabeth):** We can all read papers like this one of Dr. Stokes in the medical journals, but one of the valuable points about coming to a convention of this sort is the inspiration we derive from hearing by word of mouth a presentation of this sort, and if it is inspiration that we are looking for today, the officers of this society are to be congratulated upon having secured Dr. Stokes.

What made me rise to speak was an instance we had in our hospital recently of a case similar to the one mentioned by Dr. Wallhauser. I, at the time, thought it was a rarity. We had one of our excellent surgeons do a gastro-enterostomy. The first night, the patient went into shock and needed a transfusion immediately. We had no donor at the time. It was about 2 o'clock in the morning. One of the orderlies who had previously given blood happened to type true and the patient was given a transfusion. The patient got well, but about 4 weeks later developed acute secondary syphilis. If that orderly had been stripped we would have found a primary lesion. We figured it was absolutely imperative to transfuse that patient, knowing the diagnosis. We could have given that patient arsphenamin injection afterwards and prevented a long and tedious treatment, if we had been on our guard and had examined the donor or taken some of his blood for a Wassermann test.

**Dr. Joseph Koppel (Jersey City):** I enjoyed this paper very much. It was a very descriptive paper and the diagnosis as made by Dr. Stokes in many of these cases was excellent, but the general practitioner, for obvious reasons, will not always be able to follow the diagnosis in the manner that Dr. Stokes does.

A good many years ago, before the Wassermann was so prevalent and was used so extensively, we had been using a great many of the therapeutic tests in these cases. First, I must say that syphilis should not be left entirely to the dermatologist. It is not a dermatologic disease. The general practitioners must learn, as Dr. Stokes said here, to diagnose syphilis by other symptoms than the skin. If the therapeutic test is applied, a good many of these cases that have been pointed out here as operated upon for gastric ulcers and so on would probably have been better treated, and to my mind there is no danger whatsoever if a practitioner is in doubt, and is not in the near proximity of a clinic managed by men like Dr. Stokes, in applying the therapeutic test.

You all remember that many years ago, be-

fore we had salvarsan, KI was extensively given. They used to say in Vienna, "If you don't know what is the matter with the patient, give him KI". That was before we had salvarsan and all the new remedies.

**Dr. Harrison S. Martland** (Newark): Dr. Stokes' paper is very timely. He calls attention to the large number of old and latent syphilis cases in which laboratory tests fail to provide a diagnosis. Someone has said that Dr. Stokes sees a far greater number of these cases than the ordinary physician or syphilographer. That is true, but we are all seeing them every day. Surgeons are operating on tabetics every day.

To properly diagnose and treat some 40% of old and latent syphilis, in which laboratory tests are negative and of little diagnostic value, he is bringing us back to good old fashioned physical diagnosis, to inspection, palpation, percussion and auscultation, which in recent years we have so sadly neglected. Laboratory tests, x-ray examinations and various technical procedures, are often at their best only confirmatory evidence to a careful physical examination. It takes a master mind like Dr. Stokes to bring us back to the importance of using what God gave us, i. e., our eyes, ears and fingers.

As a pathologist, I wish to express my admiration of Dr. Stokes' work, especially his recent book "Modern Clinical Syphilology". Aside from Dr. Ewing's book on tumors, it is perhaps the second book since Osler's original one volume "Practice of Medicine", among outstanding classics of American medical literature. It is a book of which our profession should be justly proud.

Surgeons, pathologists and internists the world over, when discussing cancer, often ask "What does James Ewing say?". Now, when we are speaking of syphilis, I will ask "What does John Stokes say?".

#### Closing Discussion

**Dr. John H. Stokes** (Philadelphia, Pa.) closing discussion: I should like, with real sincerity, and not merely as a matter of form, to thank my colleagues for a discussion which really demands that I should have come here with asbestos ears, able to resist the blandishments of such sirens as Dr. Martland.

How to keep patients from being infected with syphilis as a result of blood transfusion is one of the most difficult problems in everyday syphilology. Before I left the Mayo Clinic I was challenged by the hematologist to set up a standard of practice with reference to transfusion examination, and I must confess that I wasn't able to do it. I did propose one criterion to the effect that the men and women who are used as transfusion donors are public servants and that their career, their life, their personality and their social makeup is as vital to their worth as donors from the standpoint of syphilis as is their Wassermann and their physical examination. You should have heard the laugh that went up because I had, of course, always theretofore and always since insisted that it makes no difference whether a man be a minister of God or of the devil, it is eminently proper always to consider him eligible for syphilis.

We ought to strip first, and do the Wassermann, too. That is my reply to Dr. Casselman. I do hope that the habit of feeling sick and uncomfortable below the epigastrium, of having a sense as of something lacking whenever we slight

a physical examination, will be ingrained upon us in the course of years of medical experience. I think it is possible to so organize medical office work that the average patient can be given the benefit of the stripped examination. How it is going to be done I can't at this moment say, but I am sure so much depends on it that I hope you won't just lie down on the job and say that it is after all a matter of small moment.

The improvement in Wassermann technics and the more sensitive Wassermann is certainly a matter very much in point. At the same time I am obliged to say that the sensitive Wassermann is a two-edged sword. One is almost as frequently obliged in these days, (at least I am, perhaps as a peculiarity of my practice), to interpret the results of over-sensitive Wassermans which have been the wrong thing on the right person, so to speak, as to interpret the failure of the Wassermann to show a convincing positive. Repetition of the Wassermann is the secret of the situation—accept no Wassermann on its face and its first result.

I think a good point was made with reference to the aorta under the age of 21. The aortitis of the child is not a syphilitic aortitis. One of the extraordinary features of prenatal syphilis is the tremendous number of spirochetes that can be found in the heart with the total clinical absence of syphilitic aortitis. In the child, therefore, the presumption always favors rheumatic aortitis. But just the same, while you are removing the tonsils and doing everything you can about the rheumatism, just throw in a little KI, so to speak.

Syphilis and the dermatologist is a topic I could talk about all afternoon. Syphilis doesn't belong to anybody. There isn't any prefix which makes a man a syphilologist; it takes a certain point of view and a certain interest. My brief for the dermatologist as a syphilologist is that by the nature of his specialty he is trained to be an objective examiner and the largest proportion of syphilis, in my firm personal belief, yields to objective examination.

As soon as internists and professors of physical diagnosis and the general group of medical men who teach in medical schools will accept the objective approach as having more merit than they now concede and will stop asking the patient questions and taking his chief complaint as the clue to his condition, I can say "transfer syphilis to the internist or to anyone else you please, because you will have the correct point of view with which to approach the disease."

The last point was the therapeutic test; I am warmly in sympathy with its use. At the same time, I should like to emphasize the fact that it cannot be intelligently utilized for vague and indefinite groups of symptoms. It should be performed for specific reasons, and when it is employed, be sure that it is carried out by specific methods, or at least methods as nearly specific as possible. For that reason, do not perform therapeutic tests with a little KI nor yet with a little arsphenamin, because there are too many traps and one gets too many false positive therapeutic responses, by the use of nonspecific drugs, to make results trustworthy. If you are going to use the therapeutic test, let it be as nearly specific as possible. The mercurial or the bismuth therapeutic test is the nearest thing to specificity that we have at the present time.

To the last speaker I can do no more than make my most profound obeisance.



## THE TREATMENT OF EARLY SYPHILIS

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The *Spirochaeta pallida* enters through an abrasion in the surface epithelium, begins to proliferate, and calls forth a tissue response which is characterized by a lymphocytic infiltration at the point of entrance. This is the chancre or primary lesion. Before and during development of this lesion the organisms pass by lymph channels to the regional and distant lymph nodes. From the lymphatic system they pass into the blood stream and thence to all parts of the body.

As they lodge in the various structures, proliferation continues and, when sufficient numbers develop, the tissues react with characteristic lymphocytic infiltration and the secondary symptoms appear. These symptoms persist for a varying period of time with remissions and exacerbations until the organisms are in large part destroyed or walled off by masses of lymphocytes. With walling off of the spirochetes the symptoms disappear and the patient passes into the latent period of syphilis.

From the time of entrance of the spirochetes up to the development of lymphocytic barriers around the disseminated organisms,\* the disease is termed early syphilis. During this period it is most amenable to treatment and in this group of patients we may hope for the greatest number of cures.

Every patient with early syphilis is a potential disseminator of the *Spirochaeta pallida*. Not alone by sexual contact but in the ordinary contacts of life such persons may pass the organisms to unsuspecting individuals. The patient is almost always a healthy young adult and is able to tolerate treatment which might be contraindicated in a patient with late syphilis. In early syphilis the disease is treated, while in late syphilis the patient is treated.

In order to prevent spread of the infec-

tion, the patient is instructed in personal hygiene, with emphasis on the care of the genital and oral lesions. A certain amount of the pathology of syphilis must be taught so that the patient realizes that the subsidence of symptoms does not mean a cure. Also, the patient must be made to realize that with sufficient proper treatment a cure is attainable.

To control the lesions neo-arsphenamin is used. We feel that this is the drug of choice because it causes the lesions to involute rapidly, is followed by few reactions, and is soluble in small quantities of water, so that it may be given with a syringe. It is given intravenously, in doses of 0.6 gm., in order to produce a rapid spirocheticidal effect. As the drug is eliminated rapidly, a second injection is given on the fourth, and a third on the eighth day. By this time, the lesions have markedly involuted and the injections are continued at 4 or 7 day intervals until a total of 6 are given. One week after the sixth dose of neo-arsphenamin an intramuscular injection of 1 gr. mercury salicylate is given. This is repeated at weekly intervals until 12 injections have been given.

The patient then rests for 4 weeks. From a therapeutic viewpoint this rest period is not necessary but it is justified by the mental effect on the patients. With a definite plan outlined for them to follow, accomplishment of a portion of the plan stimulates them to complete the treatment.

After the rest period, treatment is resumed. This consists in a repetition of the first series of treatments with the exception that the neo-arsphenamin is given at weekly intervals. This course of 36 treatments, given over a period of approximately 40 weeks, constitutes the minimum amount of treatment which may be given with reasonable hope of cure.

After its completion, the patient rests. Wassermann tests are done each month for the first 3 months, then at the fifth, eighth, and twelfth months. Sometime between the eighth and twelfth months a lumbar puncture is done and the cerebrospinal fluid examined for its cell and globulin content

and Wassermann reaction. If at any time the Wassermann test becomes positive, or if the cerebrospinal fluid is abnormal, a course of 18 treatments is repeated. If the tests are all negative and the patient is free from symptoms, we feel that a cure has been effected. The patient is told this but is also directed to return each year for a physical and serologic examination. If sickness develops, no matter what the nature, the patient is advised to get in touch with the clinic as quickly as possible so that we may determine whether or not the condition has any bearing on his syphilis.

Certain alternative drugs may be used. Instead of neo-arsphenamin one may use arsphenamin or sulpharsphenamin. Arsphenamin possesses the disadvantages that it must be carefully alkalized, given with a gravity or pressure apparatus in a large quantity of water, and not infrequently is followed by severe reactions. Sulpharsphenamin possesses the advantage that it may be given subcutaneously in small quantities of water. This is of particular value in treating infants and individuals with difficult superficial veins.

Instead of intramuscular injections of mercury salicylate, other forms of mercury may be used. We feel that inunction with mercurial ointment is the most satisfactory method of administration, because the patient's saturation point can be quickly reached and maintained. The patient is given mercurial ointment in wax papers, containing 1 dram each, and directed to rub the contents of one paper on some different part of the body each day, for at least 20 minutes. At the end of each application the excess may be washed off with benzene. After a varying number of rubs the patient notices a slight tenderness of the gums. This indicates the saturation point, which can be maintained by using the inunctions every second or third day until the period of 12 weeks has elapsed.

The use of inunctions presupposes an intelligent coöperative patient who will carefully carry out instructions. The average dispensary patient is far from this, so that the intramuscular injection of some slight-

ly soluble mercury salt is more effective. This causes a variable amount of pain, frequently nodules develop at the site of injection, and slow absorption may produce cumulative effects.

The mercury may be given intravenously. For this a soluble salt is used and, because of the small dose and rapid elimination, must be repeated every second or third day. Mercury may also be given by mouth, as protiodide pills or bichloride in solution. This is the least satisfactory method but it is effective.

Any of these drugs may be substituted for the neo-arsphenamin and mercury salicylate of the routine treatment. In doing this, the advantages and disadvantages of each form of treatment must be carefully weighed.

The patient with early syphilis is usually an otherwise healthy young adult. In this type of patient there are no contraindications to treatment. Every patient receiving neo-arsphenamin has a vasomotor reaction. If one observes the conjunctival blood vessels during or after the injection, a dilatation is seen. In some patients the reaction is more severe and accompanied by nausea, vomiting, urticaria, lividity of the skin, and even unconsciousness. These symptoms may be prevented by having the patient take a laxative on the day preceding the injection, and a light diet, with no eggs, on the treatment day. When severe symptoms develop they can be controlled by the administration of adrenalin or atropin sulphate sublingually or hypodermatically.

Two or 3 days after the injection, the patient may have an exacerbation of the disease symptoms. This is the Herxheimer reaction and is thought to be due to the rapid destruction of spirochetes with the liberation of toxic substances. This reaction disappears spontaneously within a few days.

The symptoms which appear in several days or weeks are due to the toxic effects of arsenic. The most frequent of these are jaundice and dermatitis and they may be mild or severe. The treatment consists in stopping the neo-arsphenamin, administer-



ing sodium thiosulphate intravenously, duodenal drainage for the jaundice, and local applications for the dermatitis.

The reactions from mercury are due to over saturation and are manifested usually by a stomatitis, and rarely by a nephritis. These reactions can be guarded against by dental prophylaxis and frequent urinalysis. When symptoms appear, treatment is stopped and a mild mouth wash prescribed until the symptoms subside when the injections may be resumed.

These reactions may occur in the treatment of syphilis, but with the exception of the Herxheimer reaction they are not frequent and usually are comparatively mild. With exception of the symptoms due to arsenic poisoning and the nephritis following mercury, they do not contraindicate further treatment.

We have outlined a plan of treatment which to our minds is best adapted for dispensary practice. It is a definite plan which the patient can grasp and coöperate in and it affords a departure point for modifications to suit both the physician and patient. We claim no originality or particular merit for it except its simplicity and the fact that results are obtained from its application.

If syphilis is ever stamped out it will not be due to the activities of any particular hospital or dispensary, but it will be because every physician engaged in practice will recognize early syphilis, formulate some definite plan of treatment, and carry it out. When this occurs, the devastations and problems of congenital syphilis, of visceral syphilis, and of neurosyphilis will fade into the distance.

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## THE TREATMENT OF LATE SYPHILIS EXCLUSIVE OF NEUROSYPHILIS

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When asked to prepare a paper upon this subject, the question arose, could there be any information offered which would be of posi-

tive benefit or even help in clarifying the subject to be discussed. Notwithstanding the opportunities afforded of perusing the literature of this and foreign countries, notwithstanding the interchange of opinions and ideas at the many and varied medical organizations, there has not been nor can there be any unanimity in the solution of the problem until such time, and let us hope that the time is near, when a specific for syphilis will be found.

Before entering upon the subject of treatment, it is necessary to recall the work of Warthin<sup>(1)</sup>. In 1916, he reported the findings in 41 autopsied cases, of which 2 had been diagnosed clinically, treated and regarded as "cured", 5 were cases of active syphilis under treatment, and 25 were cases where syphilis was excluded because of absence of symptoms and denial of previous infection. In all these cases spirochetes were found in various organs. Since then similar findings have been reported by other observers.

### TREATMENT

Important questions immediately arise. What is it that we hope to accomplish? Is it to obtain a negative Wassermann? If so, what is its significance, if any? Is it to obtain an arrest of the disease? Is it to obtain a clinical cure? Is it to mean the elimination or destruction of all spirochetes? The answers to these questions, from personal experience, are dependent upon the time elapsed after appearance of the initial lesion, and the thoroughness and sufficiency of treatment during the early period. In my experience, and in that of a great majority of observers, it would seem possible for us to say that we have obtained a "cure"—meaning thereby freedom from all clinical symptoms; negative reaction for a term of indefinite years, caused in all probability by a developed immunity to the spirochete, which immunity cannot be measured by any positive length of time, as proved by the number of cases reported of a second infection occurring at longer or shorter periods after the first infection.

We must not forget that before the advent of the arsphenamins, numberless cases treated with mercury and the iodides were "cured" as far as freedom from clinical symptoms

were concerned. Is it not possible that there was an immunity established by the infection itself? In those cases untreated or insufficiently treated in their early stages, my results have been exceedingly poor as to obtaining permanent serologic changes, but better as to most of the clinical symptoms excepting those due to established pathologic changes. A concise report of a conjugal case might be illustrative.

A woman, aged 43, was referred to me in December, 1922, and examination revealed a tonsillar chancre, an extensive exanthem, general adenopathy and a 4-plus Wassermann reaction. Examination of the husband showed absolutely no clinical symptoms, but his blood Wassermann was 4-plus. Both received the same treatment, 3 courses of arsphenamin and 3 courses of mercury. At the conclusion of treatment, the wife's blood reaction was negative and continued so for 11 examinations, the date of the last being January, 1927. The husband's Wassermann varied; immediately after treatment it was 3-plus, as were the next 2 tests; renewed treatment with arsphenamin and bismuth for 2 courses, and the following 2 examinations of the blood showed 4-plus; after a period of rest, we gave a course of sulpharsphenamin and bismuth, and during this period patient developed a gumma, which responded to mercury and the iodides, and the application of emplastrum hydrargyri. How could such a result, or rather lack of result, be interpreted? Two patients, husband and wife, the wife with marked clinical symptoms, the husband with no clinical symptoms excepting the Wassermann; both receiving the same treatment; wife's blood reaction becoming negative and remaining so, the husband's continuing positive; he received additional treatment and while undergoing this course developed a gumma.

Here was a field for speculation, a problem offered for solution. I believe that we activated an old infection that had been long dormant in the man, as he, after persistent inquiry, acknowledged a penile sore many years before marriage. My overtreatment probably lowered his resistance, caused activation of the spirochetes, and, as he had syphilis at the

time his wife contracted the disease, he showed no visible signs of an infection.

Such instances emphasize the question as to what should be our objective in these cases lacking in early or insufficient treatment. Should we endeavor to obtain a persistently negative Wassermann? Many, probably a large majority, would vigorously endeavor to obtain such result; others, and their number is increasing, would cease their treatment for the syphilis and confine their efforts to placing their patients in good physical condition, paying no attention to a positive Wassermann unless there be other clinical manifestations.

#### THE WASSERMANN FAST CASES

According to Wile,<sup>(2)</sup> "the tremendous importance of the diagnostic value of the Bordet-Wassermann test cannot be over-estimated. Like many other scientific discoveries, however, the application of the test to clinical medicine has brought with it vexatious and perplexing problems; due largely, it may be said, to the attempt to attach to it other than diagnostic importance.\*\*\*\*\* However, it is not with the diagnostic aspect of the Wassermann test that present-day practice has any quarrel. Rather with the natural attempt to place upon the test a prognostic and therapeutic function equal to its diagnostic value.\*\*\*\*\* Instead of its acceptance with considerable reservation, it is a regrettable fact that this view is so blindly accepted by medical men today.\*\*\*\*\* It is regrettable no less from the standpoint of the patients, hundreds of whom, by reason of it, suffer the damage of needless therapeutic hardship, and often great mental anxiety.\*\*\*\*\* It has indeed been a frequent paradoxical finding that following energetic treatment, a clinical improvement and greater degree of positiveness can exist than before treatment was instituted.\*\*\*\*\* The Wassermann fast cases then, in a large group of latent and late syphilitics, are, in my opinion, suffering from over-treatment and receiving incalculable damage because of the blind adherence to a wholly erroneous concept.\*\*\*\*\* The late cases, involving as they do a great degree of tissue damage and a consequent



greater replacement of fibrosis, maintain throughout their lives the expression of such injury in a permanent change expressed in a fixed blood reaction."

#### ROUTINE OR STANDARDIZATION OF TREATMENT

With advent of the arsphenamins, came the original claim of one dose being sufficient to completely sterilize the patient, but our enthusiasm was short-lived. Then 2, 3 or more doses were supposed to accomplish a cure, but again we suffered disappointment. Then 2, 3 or more courses of a varying number of treatments at various intervals were advised, and still we had no positive results.

Dix<sup>(3)</sup> states that no routine plan of treatment, not susceptible to prompt and wide variation, would seem wise. It is as important to know when to stop and watch as it is to know when to start and how to proceed.

Vecki<sup>(4)</sup> says that in order to cure syphilis we must first discard all rules for dosage and the number of injections to be given in the various stages of the disease. There is, and there can be, no schedule of any value to direct the physician in the treatment of syphilis.

George Henry Fox<sup>(5)</sup>, the dean of American syphilologists and a keen clinician, 40 years ago said: "I do protest against the common practice of treating all cases of syphilis upon a routine plan. Who would think of venturing upon the unqualified statement that scarlet fever should be treated for so many days or weeks? No one! And yet we find many writers on syphilis laying down the absolute rule that the disease must be treated during a specific number of months or years." This statement is as true today as it was 40 years ago.

Stokes<sup>(6)</sup> writes: "If the impression is left that the treatment of the disease should be parcelled out in segments, each self-sufficient and governed by its own laws, it defeats its own purpose.\*\*\*\*\* Despite all our so-called prophylactic effort, nothing will prevent the development of late complications in a certain group of patients, who present the fatal combination of predisposed soil and trophic organism. It is equally true that an

even smaller group of patients will master the infection for themselves irrespective of our interference. Between these two extremes will come those we have radically cured, those whom we have managed to place in commensal relation to their infecting organism, those whose immunity we have broken by treatment measures whose potentialities for future harm as well as present good we do not as yet understand, and those we have destroyed outright by treatment itself. The study of the irrelation of those groups is one of the most complex problems of the medicine of today. Its solution will not be accomplished by a mental or physical separation of the various phases of syphilis and syphilotherapy into airtight compartments each with its own technic, ideals and aims."

#### DRUGS

Prior to 1907, the drugs upon which we placed our reliance were the mercurials and iodides. In 1907, atoxyl was introduced, and then followed the various other combinations with arsenic content, particularly the arsphenamins. Bismuth, flumerin, gold, platinum and other metallic elements are being used and experimented with. Nonspecific therapy has been brought to our attention. In regard to the latter, attention might be called to the work of Greenbaum and Wright<sup>(7)</sup>, who summarize their findings in the use of milk: "In this study we have shown that nonspecific therapy alone will result in a partial or complete involution of secondary and tertiary lesions. When used as an adjunct to neo-arsphenamin in the treatment of patients with latent syphilis with strongly positive Wassermann reaction, the influence in reducing a positive reaction to negative is more marked than when neo-arsphenamin alone is used. The explanation of this is not clear, but it is suggested that the protein therapy serves to stimulate normal protective mechanisms within the body. If this is true, nonspecific therapy should prove a valuable adjunct to the usual syphilitic remedies."

Herrold's<sup>(8)</sup> conclusion regarding the use of gonococcus protein in combination with neo-arsphenamin is that it exerts a favorable influence on the reduction of the Wassermann

reaction and on the clinical course, particularly the adenopathy. There is no deleterious action with the simultaneous use of the 2 methods of treatment.

O'Leary<sup>(9)</sup> states: "In contrast to the results in dermatology, the effects of nonspecific treatment have been more encouraging in the treatment of various malignant manifestations of syphilis, and I trust the reported observations are but the forerunners of more remarkable accomplishments in this field."

The use of mercurials by the various methods and combinations, and the use of the iodides are too well known to need elaboration.

#### APPROACH TO TREATMENT

The approach to treatment of late syphilis, if one is desirous of obtaining best results and avoiding damage to his patient, requires aid from the various branches of medicine and serious consideration of the aggregate findings. Dr. Rosen<sup>(10)</sup>, formerly Associate Professor of Dermatology and Syphilology, College Physicians and Surgeons, now Professor of Dermatology and Syphilology at the New York Post-Graduate Hospital, in charge of the Department of Syphilis, says, in a personal communication, that he does not determine what a particular individual needs in the way of treatment until the history is complete. Age, height and weight are noted. If there be a history of an initial lesion, when? Has he any subjective symptoms? Has there been any previous treatment? If so, the nature thereof? Report of the last and previous Wassermanns; by whom and where were these examinations made? Objective symptoms: the skin for lesions or scars; the nose, throat, tongue, mucous membranes and bones for present or evidence of previous lesions. Patient is referred to the Ophthalmologic Department for examination of the fundus, pupils and field of vision; to the Medical Department for blood pressure, examination of the viscera, lungs and heart, with the x-ray findings and a report of the urinary findings; to the Neurologic Department for findings, including examination of the spinal fluid. These reports are entered upon the history chart, together with record of any skin mani-

festations, nitritoid reactions, jaundice, neuralgic pains or pruritus ensuing during or after previous treatment. Finally, a report of the present Wassermann reaction with different antigens.

#### TREATMENT

Zeisler<sup>(11)</sup> writes: "I may say that I do not advocate routine treatment but believe that individualization is necessary. Treatment must depend upon the patient's age, physical condition, the presence of organic disease of the heart, blood vessels, liver, etc., and the anatomic location of the lesions. A great deal of harm is being done by indiscriminate use of the arsphenamins, especially in large doses, in the treatment of late syphilis in people over 50 years of age. This applies especially to patients with syphilitic involvement of the cardiovascular system and liver. Many of these patients will do better on the older methods of treatment with mercury and iodides in alternating courses, occasionally substituting bismuth for the mercury. In many cases of late syphilis of many years duration the attempt to "cure" the disease by too intensive and too prolonged treatment may have disastrous results. In these cases I advocate the intermittent plan of treatment, giving a course of mercury and iodides 2 or 3 times yearly and if there be no contraindications alternating with a course of 6 to 8 injections of neosalvarsan in small doses—0.3 gm. as a rule for its tonic effect. I believe it is better not to give mercury and arsphenamin simultaneously, and to allow rest intervals between courses. In these days of routine treatment too much attention is being paid the Wassermann reaction and too little to the patient himself."

George M. MacKee<sup>(12)</sup>, formerly Professor of Dermatology and Syphilology, College Physicians and Surgeons, Columbia University, New York, now Executive Professor of Dermatology and Syphilology, N. Y. Post-Graduate School and Hospital, says: "I use arsphenamin in all cases of late syphilis, cautiously in the aged, in cardiovascular and renal cases. For teaching purposes a general routine, but each case must be treated according to indications. I always give several courses of combined therapy in these types but



in many cases I discontinue the arsphenamins and keep patient under observation, with perhaps an occasional course of mixed treatment, or mercury or bismuth according to indications. I do not treat patients steadily and forever because they have a positive blood Wasserman."

Cannon<sup>(13)</sup> believes in continuous medication in increasing doses, beginning with arsphenamin and mercury and gradually increasing the arsphenamins, so that the last 4 or 5 doses will represent 0.1 gm. to every 25 lb. of body weight. A course consists of 10 arsphenamins and 15 mercuries; then renewal of the arsphenamins, this time without mercury. As soon as the arsphenamins are stopped the mercury is resumed, with potassium iodide orally. This method is continued until 30 or 40 arsphenamins and 40 to 60 doses of mercury have been given. If the Wassermann is still positive, stop all injections and give mixed treatment from 4 to 6 months before resuming the injections. Use bismuth only in selected cases. Cannon believes that all cases showing only a positive Wassermann can be rendered negative by giving continuous treatment. A blood count every 3 to 5 months and the urine examined every month.

Rosen<sup>(10)</sup> says: "In all late cases extreme caution is necessary. I differentiate between those cases having no subjective or objective symptoms excepting a positive Wassermann and those cases presenting symptoms. In the first group, I am particularly cautious of the arsphenamins, preferring bismuth or mercury, not to influence the Wassermann, but as an insurance against what might occur. The second group I always start with bismuth, followed by smaller than the usual dose of one of the arsphenamins, with weekly examination of the urine and observation of the skin for signs of possible toxic effects. The iodides are given intermittently. The number of treatments depends upon the improvement noted and the well-being of the patient. In cardiovascular and visceral involvement, and to the aged, the arsphenamins are given with even greater caution; and never in ambulant cases. In leukoplakia, particularly with fissures or ulcerations, bismuth and mercury are

the drugs of choice, as it is known that arsenic may stimulate epithelial proliferation, especially in the patient with poor mouth hygiene and epithelioma resulting. In case of skin manifestations during treatment, stop all arsenicals. No fixed method as to number of courses or treatment."

Sutton<sup>(14)</sup> says: "For the past 3 years, we have been depending upon sulpharsphenamin, intramuscularly (approximately 0.6 gm. every 3 weeks), with intramuscular injections of salicylate of mercury, always in vegetable oil, never in mineral oil, between the arsenic injections. The majority of our cases in late syphilis receive small doses of sodium iodide. I have no hard and fast rule regarding the frequency or duration of the treatments."

Wise<sup>(15)</sup>: "Avoid excessive salvarsan in old persons. Avoid excessive salvarsan in advanced cardiovascular disease. Give no salvarsan whatever in leukoplakia."

Wallhauser<sup>(16)</sup> "divides cases into 2 groups: (1) Those with active clinical lesions are treated intensively with mercury injections, continued until the clinical signs disappear, then arsphenamin and bismuth for a year, with rest periods during which potassium iodide is administered. (2) Those in which a positive Wassermann is the only symptom, give us the most concern. Intensive treatment has failed to change the reaction. My experience is in favor of small doses of bichloride of mercury and potassium iodide orally and in combination for a long period, with careful regulation of patient's general habits, diet and general hygiene. I give no arsphenamin whatever in leukoplakia nor in advanced cardiovascular disease. I have no routine method as regards duration of treatment or as to the amount of medication, each case being a law unto itself."

Dix<sup>(3)</sup>: "The hope of complete cure lessens with each succeeding year, and our treatment becomes more and more directed toward the relief of symptoms and the prolongation of life.\*\*\*\*\* The natural physiologic changes of the advancing years, and the pathologic changes of the tissues and blood vessels caused by the infective agent are obstacles which give us concern. It seems reasonable to believe

that the host which has harbored the spirochetes for so many years without clinical manifestations, has established some protective agency, which we should be careful not to disturb."

Fox<sup>(17)</sup> states: "I have no regular plan in treating late syphilis (exclusive of neurosyphilis). It is a period of the disease where every case is a law to itself. In the case of youngish or middle aged individuals who are robust and show no evidence of cardiovascular trouble, I believe in making an attempt to convert a positive into a negative Wassermann by repeated courses or arsphenamin, or substitutes, followed by mercury. Such courses are similar to those we all use in the early stages of the disease. In oldish persons or those with visceral or cardiovascular changes, it is wise to be cautious and feel your way along. To treat a person of 70 or older by vigorous methods is obviously improper.

Parkhurst<sup>(18)</sup>: "In late cases, with cutaneous manifestations, I feel that a young or middle-aged patient should receive at least 3 years' treatment with the arsphenamins, mercury and bismuth, and with the iodides in moderate doses orally. After the three-year period I feel that I should encourage an occasional course of mercury. In elderly or infirm patients, I feel that the treatment should not be pressed beyond the point of disappearance of active lesions. Of course, there must be variations in this plan to suit the individual case."

The opinions of a number of foreign syphilologists are herewith noted<sup>(19)</sup>. Almost all of the syphilologists interrogated use iodine orally in addition to the regular therapy in tertiary syphilis. The compound employed is practically always potassium iodide. Zinnser, Spiethof and Jessioneck start treatment with 100 gm. of iodine and then continue with combined arsphenamin-bismuth or arsphenamin-mercury therapy. Some physicians, for example Pinkus, Tachau, Stern, regard iodine sufficiently potent in tertiary cases and only resort to the use of arsphenamin when the effect of the halogen does not prove entirely satisfactory or when more assurance of a

cure is desired. On the other hand, Wechselmann adheres strictly to neo-arsphenamin therapy, as do Schonfeld and Herxheimer, who also employ bismuth and potassium iodide when necessary. Mulzer sometimes combines the usual procedure with the malarial treatment instead of with iodine.

In syphilis of the liver, Jadassohn<sup>(19)</sup>, Riecke and Bruhns do not begin treatment with arsphenamin. Spiethof and Jessioneck cautiously employ the regular procedure in internal syphilis, particularly in vascular and heart syphilis. They inject small doses of neo-arsphenamin and, in addition, often administer iodine by mouth. Schonfeld employs neo-arsphenamin alone in vascular syphilis, while Spiethof utilizes either the same drug or acetarsone. For the treatment of syphilitic aortitis, Galewsky uses frequently repeated courses of neosilver-arsphenamin in small doses over a period of 1 or 2 years. In the intervals between these courses he prescribes iodine by the oral route.

One of the greatest syphilologists of all time, Fournier<sup>(20)</sup>, a keen observer, a masterful clinician and teacher, expressed his opinion as to treatment of late syphilis in this wise: "The whole treatment of syphilis is not contained in the administration of specific agents. It is more comprehensive, more complex than that. In some cases tertiary phagadema obstinately resists the most energetic specific treatment. In such cases we must renounce specific remedies, and have recourse to indirect treatment with a view to correcting the organic disposition which favors the phagadenic progress. In these days, auxiliary medication and hygiene supersede specific treatment, and on them depends the cure; by modifying the soil, which has become refractory to the specific action. Hygiene, habits, diet and mode of life require supervision." This was before the days of the Wassermann and the arsenicals, but his view of treatment is as applicable today as it was when taught.

#### CONCLUSION

In conclusion, I desire to make no claim of originality for this paper. It is a selected



compilation of the views of a limited number of leading syphilologists, culled from the literature and opinions personally communicated. The time allowed for its reading precluded a thorough or complete exposition of the subject. I have touched upon but a few of the high spots, and probably much of importance has been left unsaid.

The outstanding features impressed upon me and which I offer for your consideration are: (1) We should have a thorough idea of what we hope to accomplish and act accordingly. (2) Avoid all routine measures and standardization of treatment. (3) Clinical symptoms, not the Wassermann reaction, should be our guide, as the Wassermann reaction has little or no significance in this stage unless there be other clinical manifestations. (4) Avoid all medication that might be harmful. (5) We should treat the *patient* with syphilis, not the *syphilis* of the patient.

The best treatment for late syphilis is the requisite treatment of early syphilis.

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## CARDIAC SYPHILIS (Syphilitic Aortitis)

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Introduction.—Acquired syphilis is frightful, not because of destructive lesions of skin and bones, but because of late complications occurring from 10 to 20 years after infection, when the patient has forgotten all about his disease. After he has long been perfectly fine and healthy, and at an age when he is carrying his heaviest responsibilities, he is suddenly confronted by the fact that he has been gradually developing a serious, irreparable and eventually fatal disease of his nervous system, heart or blood-vessels.

The main dangers of syphilis are found in the late progressive lesions of the nervous system because nervous tissue will not regenerate when once injured; and in the cardiovascular system because the imperfectly healed syphilitic foci in the aorta about the orifices of the coronary arteries, and in the aortic cusps, as well as in the cerebral vessels, produce death from angina, cardiac decompensation, aneurysm and cerebral hemorrhage. Syphilitic lesions of the liver, skin, bones, stomach, lungs, etc., are not very disastrous because they are all quite amenable to treatment. In the liver, aside from cases of extensive diffuse cirrhosis of syphilitic origin, a gumma can be easily healed. Its scarring does not seriously handicap the rest of the organ as there is sufficient undamaged tissue to maintain hepatic function. If the nervous or cardiovascular systems are affected enough to cause symptoms, a fatal outcome is likely in the majority of cases. One of the gravest dangers of acquired syphilis is the appearance some 15 years after infection of cardiac symptoms, such as dyspnea, pain and later signs of cardiac failure, or of sudden death or aneurysm, often without warning, in men who have perhaps forgotten they ever had syphilis.

Incident.—It is stated that 4 to 7% of all patients coming to autopsy in general hospitals show syphilitic aortitis, and that involvement of the aorta accompanies 70% of all

visceral syphilis. Clinically, over 90% of genuine heart disease is either of the hypertensive type, or rheumatic or syphilitic in its etiology. The remaining 10% fall into an endocarditis group (acute and subacute bacterial) or into a rare group containing congenital heart lesions, etc.

Our experience agrees with that of Cabot<sup>1</sup>, that in the 90% of genuine heart disease approximately 60% will fall in the hypertensive type (hypertrophied and dilated hearts with nephritis, arteriosclerosis, both or neither, but with no valvular lesions, etc.); about 33% will be the result of rheumatism, and about 7% will be due to syphilis. Goodridge<sup>2</sup> has stated that 15 to 25% of all organic heart disease is caused directly by syphilis. Warthin<sup>3</sup> is of the opinion that the most common cause of myocarditis is syphilis. Wyckoff and Lingg<sup>(4)</sup> state that although the percentage of syphilitic cardiac disease is less than one-tenth of all heart disease, its inroad upon the most productive period of a man's life, in the ages from 40 to 60 years, is a serious problem in public health.

We do not believe that syphilis plays such an important rôle in organic heart disease and are content with about 7% as representing an approximate practical number. Even 7% makes cardiac syphilis so frequent that it must be seriously considered in the diagnosis of any organic heart disease. I wish to emphasize, however, that the vast majority of heart cases are of the hypertensive or rheumatic type and have no connection whatever with syphilis as an etiologic factor.

Statistics must not be relied upon too closely to obtain the incidence of syphilis in many of its forms. The enormous mortality of cardiac syphilis is hidden in the death certificates under such elusive names as chronic myocarditis, myocardial insufficiency, chronic valvular disease, angina pectoris, cerebral hemorrhage, etc. Syphilis is almost never written on the death certificate and the number of deaths due to this disease is necessarily camouflaged by the secondary complications. They are sufficiently realized, however, to make many life insurance companies turn down the syphilitic.

Since my appointment as Chief Medical Examiner of Essex County, I have had the opportunity of investigating sudden deaths when unattended by physicians, in a community of about 750,000 people. Even when fortified by an autopsy service of around 600 cases a year, I have been unable to accumulate any convincing statistics as to the frequency of syphilis as a cause of death. Even in our office, after autopsy disclosed the cause of death as cardiac syphilis, the cause of death has for social reasons been given as "chronic myocardial disease" or some such camouflage. I can state, however, that I am surprised at the number of sudden deaths occurring in homes, in office buildings, or on the street, which have been due to coronary atresia or occlusion caused by syphilitic aortitis. Pure arteriosclerosis of the coronaries, having no relationship to syphilis is, however, a much more frequent cause of such deaths.

**Age Incidence of Main Types of Heart Disease.**—Genuine heart disease of the rheumatic type usually begins in early youth. Rheumatic endocarditis (or pancarditis) is acute, subacute or recurrent but never chronic. The later effects should be designated as chronic valvular defects but not called chronic rheumatic endocarditis.

Genuine heart disease due to syphilis usually occurs between 35 and 45 years of age; at least three-fourths of the cases show symptoms between the ages of 30 and 55 years. It is later than most rheumatic and a little earlier than most hypertensive cases. Syphilitic aortitis shows clinical manifestations usually 15 to 20 years after infection, remaining undiscoverable, hence latent and harmless, up to that time. It may remain latent throughout life and appear only as an historical landmark at autopsy. Perhaps the majority of cases behave in this manner.

Heart disease of the hypertensive type occurs after 50 years of age. It must not be forgotten that the arteriosclerotic process starts in some cases in infancy, that there is an hereditary handing down of bad arteries and that the most severe hypertensive cardiovascular disease may occur in young adults who resist all dietary measures, and has a



hopeless prognosis. Likewise, syphilis of the heart producing symptoms may occur 6 months or even earlier after infection.

Sex.—Syphilitic heart disease is said to be from 3 to 6 times more frequent in men than in women.

Biological Development of Cardiac Syphilis.—We know from the clinical failures to prevent syphilis by early excision of the chancre, backed by the experimental evidence of Brown et al<sup>4</sup>, that there is an early invasion of the

blood stream with treponema even before the initial lesion has started to appear. The chancre then appears as a local defense reaction at the original point of entry. Later, when the secondary rash appears, there is a stage of very pronounced septicemia, or spirochetemia, when treponema are in large numbers invading every tissue of the body accessible to the circulation. Many are taken to the heart and lodge in the myocardium.

Does cardiac syphilis begin at this stage?

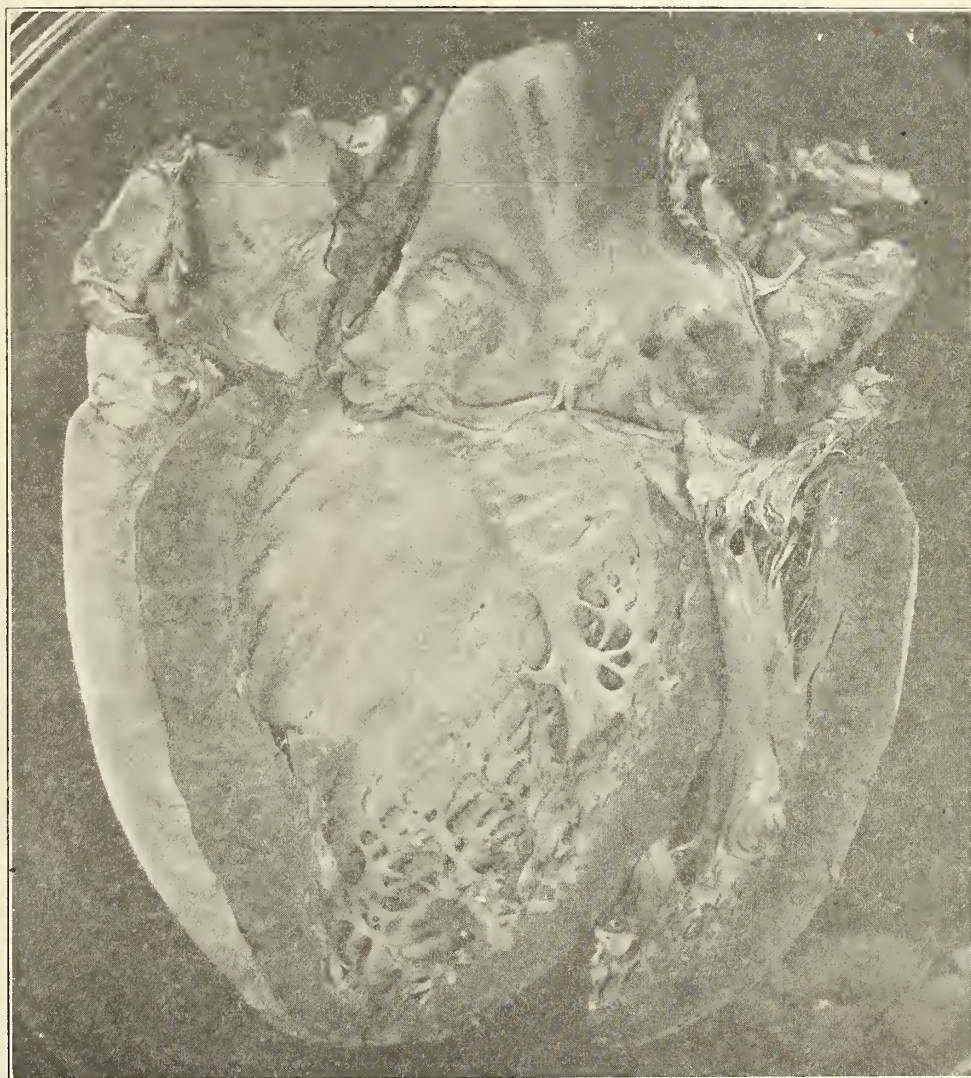


Fig. 1. Syphilitic supravulvular sclerosis of the aorta.

This is the most frequent and important lesion in cardiac syphilis. The raised, wrinkled, triangular patches of sclerosis devoid of fat and calcification may be noted with their apices pointing toward the commissures. The whole process is extending in a horizontal manner around the aortic root. The orifices of both coronaries in this heart are situated above the sinuses of Valsalva and would undoubtedly be involved later in the disease. An extension of the process downward to the aortic cusps has already taken place. The widening of the commissures, with consequent flattening of the cusps and aortic regurgitation, may be noted. The heart is enlarged both from hypertrophy and dilatation, and there is considerable subendocardial fibrosis over the intraventricular muscular septum.

Do the organisms remain there in a latent condition, or do they set up a specific inflammation of the myocardium in the early stages of syphilis? Warthin's<sup>3</sup> pathologic observations lead him to conclude that in the second stage of syphilis there is a very active specific infiltration of the heart muscle. That the presence of the treponema would set up such an inflammation at this time, aside from his work, is not proved. Clinically, it is well known that various cardiac disturbances take place during the early stages of syphilis, such as tachycardia, bradycardia and arrhythmia. McLester<sup>5</sup> states that the heart is easily excited and quickly exhausted. He is of the opinion that probably two-thirds of the patients with early syphilis show these so-called functional disturbances. It is questionable whether this condition represents a true myocarditis, which he thinks is rare. Involvement of the cardiac nerves, the vagus and sympathetic, as well as psychic influences, play a rôle in these disturbances. Brooks<sup>6</sup> thinks that the production of clinical symptoms in this stage is very infrequent.

It is obvious that this question is a very important one. If there is a specific myocarditis in early syphilis there is a foundation laid for a specific interstitial gummatous myocarditis which Warthin<sup>3</sup> claims is so common in later syphilis. If it does not occur, we have to look for some other explanation of late cardiac syphilis. I believe it is quite possible that there may be a specific early myocarditis, and also that the heart muscle may harbor treponema for many years without much inflammatory reaction. It is possible, therefore, that later gummatous myocardial changes may have their origin in these early foci of specific myocarditis, or in the rests of treponema brought to the heart muscle in a hematogenous manner during the early stages of spirochetemia. It is manifestly unfair, unless some of us will duplicate the work of Warthin, which is extremely technical and time consuming, to dispute with too much certainty his findings. I am of the opinion, however, that specific myocardial changes are an unusual occurrence and do not explain most cases of cardiac syphilis.

As the stage of spirochetemia passes away the various organs attempt to rid themselves of the organisms by way of the lymphatics. The important lymph-node groups in the mediastinum, especially those around the bifurcation of the bronchi and trachea, become the collecting stations or reservoirs for the storage of drained spirochetes. There, they are exposed to the phagocytic action of the reticulo-endothelial system. Most authorities have for years agreed that the earliest histologic lesions in syphilis involving the aortic root will be found around the vasa vasorum in the adventitia, where there is a mantle of lymphocytes and histiocytes with an obliterating endarteritis. Numerous treponema can often be found in these areas. A similar defense reaction is seen around the cerebral vessels in epidemic encephalitis where the cellular elements are thought to be contained in the much discussed Virchow-Robin perivascular lymph space. It is, therefore, reasonable to suppose that the lesion in early aortic syphilis is suggestive of lymphatic extension from the reservoirs in the mediastinal lymph-nodes by retrograde lymph flow into the perivascular spaces around the vasa vasorum, and that the obliterating endarteritis and formation of miliary gummas occur afterward.

I am of the opinion that the main lesion in most cases of cardiac syphilis is a supravulvar aortitis induced in the above manner. To support this, Klotz<sup>7</sup> has furnished pathologic observations calling attention to the surrounding mediastinitis and peri-aortitis in syphilis of the aortic root and aneurysm. The brilliant clinical studies of Stokes<sup>8</sup> further confirm the work of Klotz. Stokes claims that these conditions in the mediastinum can often be recognized by x-ray examinations. He further claims that the clinical symptoms in aneurysm, especially the pain, may be relieved by antiluetic treatment causing a melting away of the mediastinitis, while the physical signs of the aneurysm, such as size, pulsation, murmurs, may be intensified by the relief of the surrounding tense barriers.

Pathology.—My experience has led me to believe that the main and most important lesion in nearly all cases of cardiac syphilis is a



supravalvular sclerosis of the arch of the aorta. This is the main lesion upon which most of the other changes and phases of cardiac syphilis depend. The earliest lesions are microscopic and occur around the vasa vasorum in the adventitia of the root of the aorta where there is seen a collection of lymphocytes and histiocytes in the perivascular lymph spaces. Stained sections may show numerous treponema in these areas. They have gained access to this area by a retrograde lymphogenous route from the reservoirs of spirochetes in the peribronchial and mediastinal nodes. Small

miliary gummas are formed in the adventitia with characteristic histiocytic giant cells, necrosis, etc. There follows a secondary invasion of the media with consequent breaking up of elastica and weakening of vessel wall.

The lesion has now developed to a stage in which it can be recognized grossly. It has been well described by Laves<sup>9</sup> as beginning in the aortic wall, just distal to the mutual attachment of the 3 aortic cusps, in the so-called commissures. The earliest patch is often a triangular area situated in the commissure connected with the aortic cusp forming the

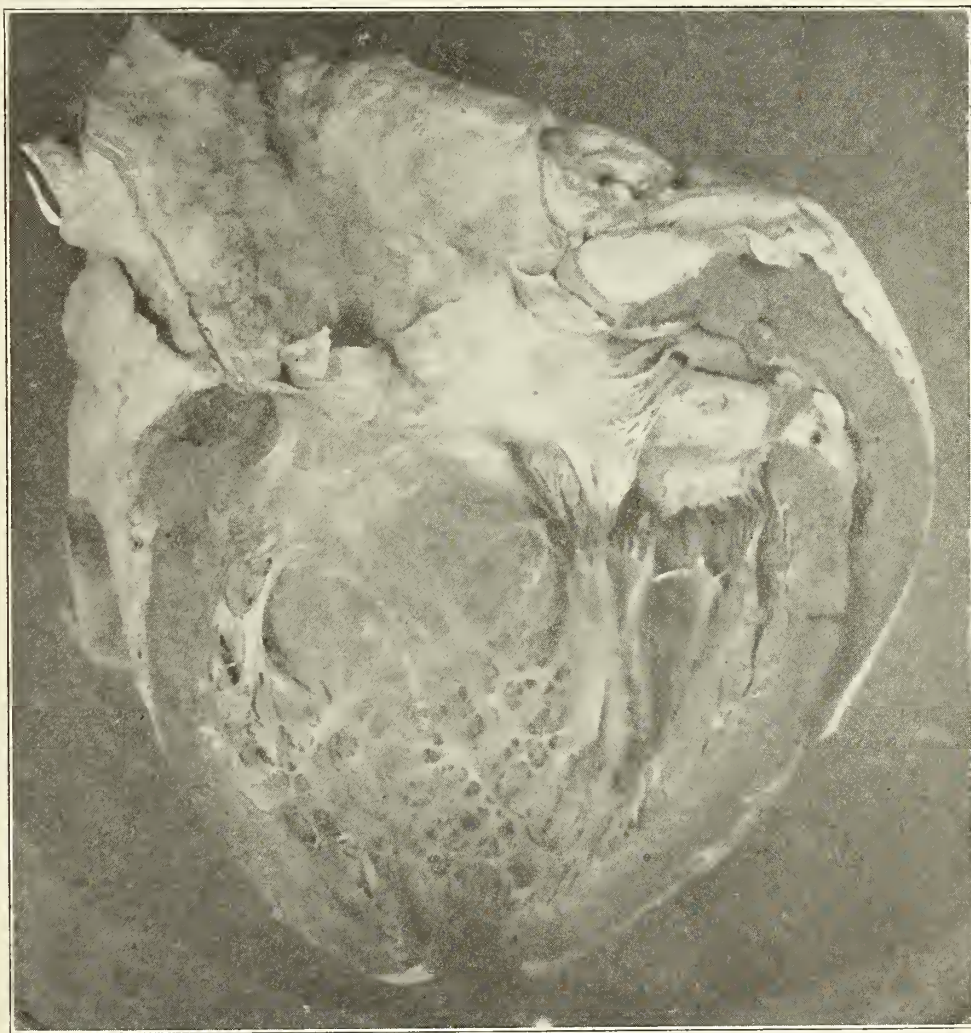


Fig. 2. Syphilitic supravalvular sclerosis of the aorta.

The entire arch of the aorta from the sinuses to the great vessels of the neck is the seat of extensive, wrinkling, crenation and scarring. The orifices of both coronaries which are high placed and supravalvular in origin have been narrowed and almost occluded by the process. Only the mouth of the left coronary can be seen as a small stenosed opening. The sinuses of Valsalva are free. There is beginning involvement of the aortic cusps but no well marked aortic regurgitation. The heart muscle is thin and there is moderate dilatation of the left ventricle due to degenerative and productive myocardial changes following nutritional disturbances depending on stenosed coronaries. Sudden death during coitus.

sinus of Valsalva where the left coronary has its opening. The base of the triangle is usually pointed distally. There is a gray, or slightly yellowish, elevation with steep sharp edges, smooth on top or marked by shallow furrows separating trivial secondary elevations. The process spreads in a horizontal manner around the root of the aorta and distally as far as the mouths of the great vessels springing from the arch. The commissural origin of this lesion may be explained by the tug felt at these places during pulsatory dilatation of the aortic root, and strain put on the valves and wall of the aorta when the ends of the free margins come together.

The danger of this lesion is threefold. By weakening of the elastica in the aortic wall and the long continued high diastolic pressure in syphilis, due to the competent aortic valve, aneurysms may occur. If the process comes near the openings of the coronary arteries, angina, sudden death, coronary occlusion and nutritional disturbances of the cardiac muscle leading to cardiac failure may occur. This is especially likely to happen if there is a congenital high position of one or both coronary arteries. Furthermore, due probably to an anatomic arrangement of fibers beneath the intima running in a fan-shaped manner from the commissure up on the aortic wall (remnants of fibers forming aortic cusps), the process may follow the channels of least resistance and encroach upon the aortic cusps. The consequent widening of the commissures which takes place is the first phase of the involvement of the aortic valve and the production of aortic regurgitation.

#### DISCUSSION OF VARIOUS FORMS OF SYPHILIS AFFECTING THE HEART

##### A. SYPHILITIC AORTITIS

(1) Aortitis without dilatation.—This is frequently seen at autopsy as an historic landmark only. It may be present for years without manifesting any symptoms and without necessarily shortening life. Again, it may cause cardiac pain (angina) either through stiffening of the arch of the aorta with its surrounding peri-aortitis (aortalgia of Allbutt and Wenckbach), or by narrowing or atresia of the orifices of the coronaries with

resulting pain from cramp of cardiac muscle (Mackenzie). Cardiac pain may be due to many factors, and it is unwise to be bigoted and adhere to any one cause of pain to the exclusion of all others. Nevertheless, many of our great clinicians have persistently done this.

(2) Aortitis with fusiform dilatation of the arch.

(3) Aortitis producing atresia or narrowing of the coronaries.—This is one of the 3 great dangers of syphilitic aortitis. We have already stated that the supravalvular portion of the aorta bears the brunt of the attack in syphilis. If we examine any large collection of hearts showing syphilitic aortitis, we will be struck by the fact that the most frequent seat for syphilis is in the first portion of the arch beginning just above a line drawn through the commissures. The area involved is in many instances a horizontal band extending around the root of the aorta in this location. Very often the sinuses are entirely free. As the orifices of the coronary arteries are normally situated in the sinuses and below a base line drawn through the commissures, they frequently escape being encroached upon by the syphilitic process. Von Glahn<sup>10</sup> has shown that frequently there is a congenital anomaly and that one or both coronaries may have their orifices above this line. In such an individual, syphilis is especially liable to produce coronary narrowing or atresia. It is a matter of luck in the makeup of the individual. I have repeatedly followed this observation in my autopsies and found that it is true. I have frequently seen the high coronary occluded by the syphilitic scar, and the lower lying in the sinus untouched.

(4) Aortitis with extension to aortic valve.—This is another of the 3 great dangers of syphilitic aortitis. We have shown above how the syphilitic process in the aorta frequently passes downward, with first widening of the commissures. This is followed by encroachment on the cusps themselves, usually the posterior cusps being involved first, producing stiffening at their attached edges, with retraction. The cusps are flattened against the sinuses, the free edge not meeting and



producing the regurgitation. White<sup>11</sup> states that syphilitic aortic regurgitation is always a serious sign of advanced cardiovascular syphilis. Patients with this disturbance rarely survive for more than a few years at the very outside. Death comes from rapidly progressive failure 6 to 12 months after discovery of the lesion, but in exceptional cases may be delayed much longer.

(5) Aortitis with formation of aneurysm. —This is also one of the 3 great dangers of syphilitic aortitis. When the gummatous process infiltrates the media and breaks through

the elastica there is great weakening of the vessel wall in these places. This may occur in more than one place, and we know that aneurysms are frequently multiple. What then is the additional mechanism at play to form aneurysm, since hypertension is not a characteristic finding of syphilis? Stokes<sup>8</sup> has shown that the average systolic blood pressure in his cases of luetic aortitis was about 155 mm. Hg. and in aneurysms it was even lower, or about 150 mm. There is, therefore, in aortic syphilis only a slight hypertension. Even with a weakened wall, it would not seem

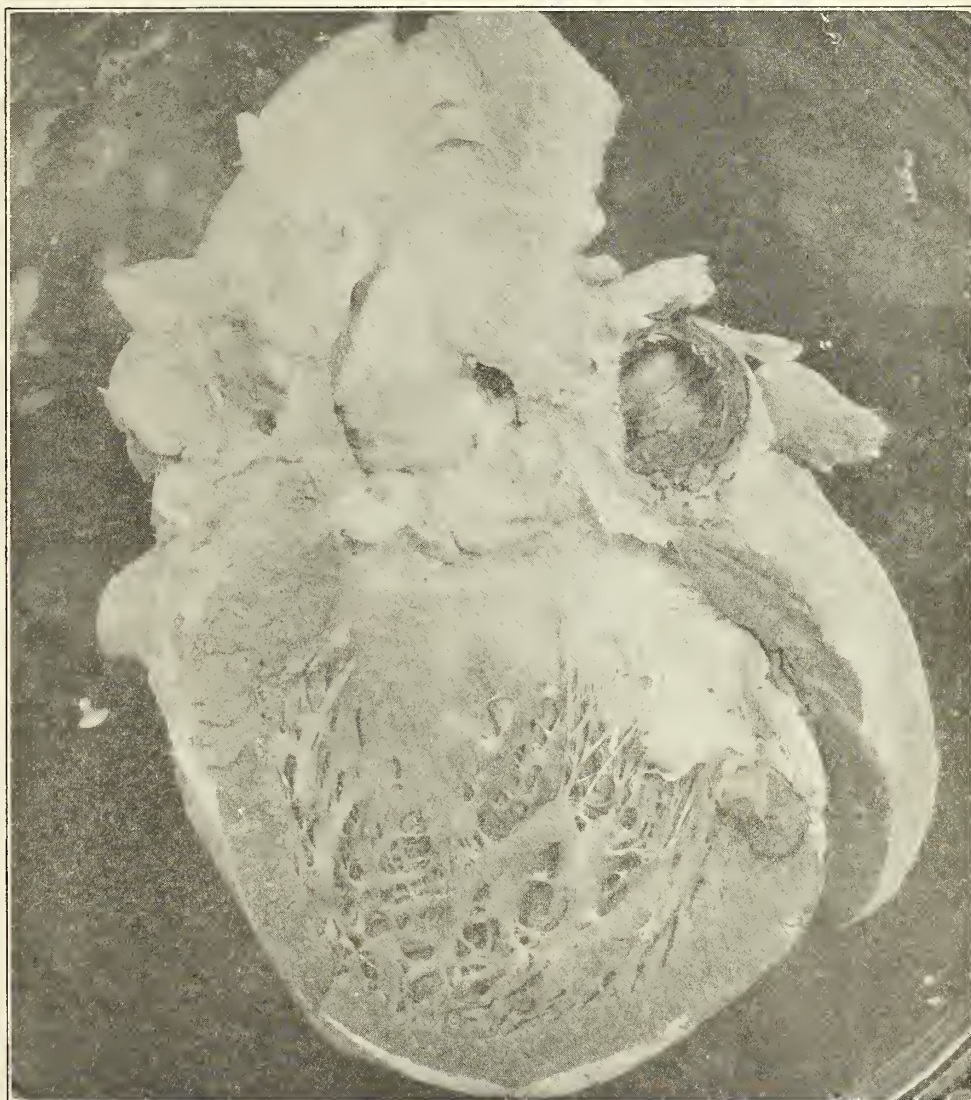


Fig. 3. Syphilitic aortitis with formation of aneurysm.

A small saccular aneurysm of the first portion of the arch may be noted. The surrounding aorta is the seat of a typical supravulvular sclerosis. There has been no encroachment on the orifices of the coronaries in this case. The aorta cusps are not involved in the syphilitic process and the aortic valve is quite competent. The left ventricle is not hypertrophied or dilated and the heart muscle is normal. Sudden death due to rupture of aneurysm into pericardial cavity.

possible that the systolic pressure was high enough to produce beginning aneurysmal dilatation. If we go over any pathologic collection of aneurysms involving the aortic arch, we will be struck by the fact that, in a large number of cases, the syphilitic process is above the sinuses of Valsalva and has not passed downward and encroached on the aortic cusps. The heart in many cases is of normal size, and not usually hypertrophied, unless there is secondary involvement of the aortic valve with consequent regurgitation. Aneurysms are more likely to occur when the aortic cusps remain competent, and the continued higher than normal diastolic pressure has its effect on the weakened wall. Involvement of the aortic cusps by the syphilitic process tends to produce a regurgitation, and the consequent fall in diastolic pressure saves the patient from aneurysm but produces a lesion which is even more disastrous.

Aneurysms may be classified as either military, saccular, fusiform or dissecting. Military aneurysms may be very small and often there is hardly any other surrounding gross lesion. They may produce sudden death by rupture, only a small blowout being seen in the aorta at autopsy. The common forms of aneurysm need not be discussed in this paper.

(6) Aortitis with extension into the first portion of the coronary.—The main effect on the opening of the coronaries is due to the process in the aorta itself, the healing lesion producing puckering, narrowing and atresia of the openings of these arteries. It is unusual, in my experience, to see the specific syphilitic process enter the artery itself, certainly not far beyond its origin. The large branches of the arteries are practically never the seat of syphilis.

(7) Aortitis with rupture of the aorta.—We have occasionally seen a large tear in the aorta unassociated with aneurysmal dilatation produce sudden death. The surrounding aorta is frequently free from gross evidence of syphilis, or shows only a small scattered area.

(8) Aortitis intimal ulcers.—Occasionally one may see a small area of syphilitic aortitis which breaks through the intima. Intimal ul-

cers are rare in syphilis, and, of course, common in arteriosclerosis (atheromatous ulcer). The arteriosclerotic process is also characterized by marked fatty changes and calcification, in contradistinction to the luetic lesion. I have seen 1 case of syphilitic intimal ulcer.

Case report.—Patient, colored chauffeur, 23, in perfect health. Felt ill while driving car and stopped in lunch wagon to get cup of coffee. Fell dead across counter. Autopsy showed a minute syphilitic ulcer in the aorta, 3 mm. in size, over which a pedunculated thrombus hung which was 5 mm. in size. This thrombus laid over the mouth of the left coronary artery occluding the artery in a ball-valve manner. The surrounding aorta was entirely free. The spleen showed many small gummas. All other viscera negative. Thrombus showed histologically blood-platelets, fibrin and leukocytes.

## B. SYPHILITIC CORONARY DISEASE

What we have said in discussing aortitis covers most of the coronary artery problem. The mode in which syphilis may affect these arteries is tabulated, as follows:

TABLE No. 1

Syphilitic coronary disease: (1) Occlusion resulting from conditions arising principally outside the vessels.

(a) Narrowing or occlusion due to syphilitic aortitis. (The common form of coronary disease and one of the 3 great dangers of syphilitic aortitis).

2) Occlusion due to changes within the vessels themselves.

(a) Extension of syphilitic aortitis into first portion of coronary arteries. (Unusual except slight extension near mouths).

(b) Syphilis of large branches. (Unusual for any marked involvement in first 4 cm. of these arteries. Is frequently confused with superimposed or coexisting atherosclerotic process).

(c) Obliterating endarteritis in terminal branches. (Based upon the observations of Warthin, this probably represents the only primary involvement of the coronary arteries by the syphilitic process).

(d) Occlusion by thrombus formation. (Usually the result of atresia of the orifices or of an associated atherosclerotic process, or a combination of both).

(e) Embolus (unusual).



### C. SYPHILIS OF THE ENDOCARDIUM AND VALVES

It is questionable whether syphilitic lesions of the endocardium exist as a primary lesion. When areas are seen in the endocardium they are almost always a direct extension from the myocardium (gumma). Involvement of the aortic cusps is always an encroachment by a process in the aorta above. Syphilis of the mitral valve and stenosis of the tricuspid and pulmonary valves due to syphilis are all questionable. This practically limits the disease to the aortic valve with the exception of the pulmonary artery. The clinical and pathologic picture of Ayerza's disease (syphilis of the pulmonary artery with cyanosis and with or without splenomegaly), while rare, is a distinct entity.

### D. SYPHILIS OF THE MYOCARDIUM

The main confusion in cardiac syphilis has been the myocardium. Here opinions range from those who believe that there is no specific myocarditis in syphilis, other than nutritional changes and degenerative and productive forms of myocarditis due to coronary stenosis, to the more extreme views as expressed by Warthin<sup>3</sup>, that syphilis is by far the most frequent cause of myocardial disease, and produces acute, subacute and chronic forms of specific myocarditis; he even attributes the very common myocardial fibrosis to the treponema.

We have already discussed the acute form. Is there a subacute or chronic form of specific myocarditis? Warthin<sup>3</sup> believes that there is a slowly progressing syphilitic inflammation of the muscle, characterized by interstitial miliary gummas and followed by myocardial atrophy and fibrosis. He believes that this is the most common type of cardiac syphilis and myocarditis. He also states that acute exacerbations of these lesions often occur, sometimes producing sudden death, and that in such cases there is more edema and a greater polynuclear infiltration. There is considerable divergence of opinion as to the frequency of such lesions, admitting that they may occur. Many believe that the chronic, diffuse, interstitial inflammation of the heart muscle

seen in syphilis is not specific, and cannot be generally differentiated with certainty from nutritional disturbances occurring in myocardial degeneration from other causes. I have rarely seen changes in the heart muscle extensive enough to cause serious myocardial embarrassment which could with certainty be interpreted as luetic in origin, and am of the opinion that most of the myocardial changes in syphilis are mainly nutritive, due to coronary narrowing by the syphilitic aortitis, and are indistinguishable from fibrous myocarditis seen in arteriosclerosis of the coronaries, which latter lesion often co-exists. This same opinion is held by Symmers<sup>12</sup> who for many years has had the opportunity of seeing an enormous amount of cardiac syphilis at Bellevue Hospital.

Larger gummas, solitary or multiple, of any size are so rare as to be of little clinical significance. They are usually located in the left ventricle and often on the interventricular septum. On account of this location, bundle disturbances (Stokes-Adams' syndrome) are apt to occur. Such gummas may soften, ulcerate and produce aneurysm of heart muscle, rupture of heart, embolus and cardiopericardial adhesions, or may be followed by localized fibrosis.

### E. SYPHILIS OF THE PERICARDIUM

Syphilitic pericarditis is questionable. If small areas are seen, they can always be traced to secondary involvement of the pericardium from a gummatous myocardium. How easy it is to say everything is syphilis, without proof, and how difficult the proof often is. I am informed that one of our best clinicians has repeatedly told his students that the ordinary garden variety of milk patch so commonly seen at autopsy is the remnant of a syphilitic infection of the pericardium.

Pathologic Summary.—If we eliminate the rarer forms of cardiac syphilis we are left with only 3 lesions of any clinical importance, namely, syphilitic aortitis, obliterating endarteritis of the finer branches of the coronary arteries, and a diffuse gummatous sclerosing myocarditis. Clinically the first is by far the most important.

## TABLE No. 2

Cardiac Syphilis: (1) Syphilitic aortitis. Manifests itself clinically by: (a) Aneurysm. (b) Aortic regurgitation. (c) Angina pectoris. (d) Combination of any of above.

(2) Obliterating endarteritis of finer branches of coronary arteries. Dangerous because it may produce: (a) Infarction with scarring. (b) May prevent collateral circulation when coronary is occluded at its orifice or in its larger branches contributing to death.

(3) Diffuse gummatous sclerosing myocarditis, acute, subacute and chronic.

Cardiac syphilis, therefore, means in the vast majority of cases aortic syphilis, and we will confine the rest of our remarks to this entity, ignoring the rarer forms and small areas of possibly gummatous myocarditis, which clinically do not specially break down cardiac reserve.

## EARLIEST SYMPTOMS OF SYPHILITIC AORTITIS

Dyspnea and precordial distress are usually the earliest symptoms. The dyspnea is usually mild, slight only on exertion, and in some cases occurs in more or less typical nocturnal paroxysms. The pain is usually only a precordial distress, usually above the level of the third rib in aortitis, below if coronary in origin. Pain at apex is usually not organic. If there has been an unusual early narrowing of the coronaries, the first pain may be in the nature of a true angina, which may be fatal or recurrent and progressive. In hyposensitive individuals, there may be little or no pain.

## EARLIEST PHYSICAL SIGNS OF SYPHILITIC AORTITIS

Stokes<sup>8</sup> believes that the most valuable single physical sign is an accentuation of the aortic second sound and its replacement by a rapping, ringing or "tambour" quality. In a man under 30 years of age, such accentuation calls for an investigation for lues. It will be recalled that the early signs of syphilitic aortitis are due to the peri-aortitis and mediastinitis before there is actual involvement of the aortic cusps or an endocardial lesion. The next most valuable sign is a systolic murmur heard with maximum intensity over the sec-

ond right interspace and not transmitted. White<sup>11</sup> states: "A functional systolic murmur maximal over the base of the heart just to the right of the sternum in the second intercostal space is quite common, and may be heard most often when the aorta is dilated. It does not come from roughening but from change in the caliber of the blood-stream as it leaves the aortic valve and enters the dilated aorta. Such dilatation of the aorta develops particularly in syphilitic aortitis, aortic arteriosclerosis and aortic dilatation with hypertension. It may not have obvious cause, but is rarely found in normal people." The murmur may be confused with a functional murmur or one due to rheumatic endocarditis. At a later period, this murmur is transmitted down the left border of the sternum with maximum intensity over the aortic area. As the syphilitic process encroaches upon the aortic cusps by passing over the commissures, this murmur loses its softness and becomes rough and harsh, and is transmitted up into the vessels of neck and down along the sternum. Definite syphilitic endocarditis of the aortic valve probably exists at this time.

Other early signs are widening of the arch of the aorta to percussion in which a quick check up with the fluoroscope is helpful, and signs of hypertrophy of the left heart, such as lowering of the apical impulse. Again I must call attention to the fact that many hearts in syphilis are not enlarged or hypertrophied unless there is definite regurgitation.

## PHYSICAL SIGNS LATER IN THE DISEASE

When the syphilitic process has encroached upon the aortic valve and there is a definite regurgitation, we have a fibrous and irreparable damage done to the valve. The physical signs of well developed aortic regurgitation are well known and form the A, B, C's of physical diagnosis. Therefore, they have no place in this discussion. Nor need the physical signs of aneurysm be considered. We wish to emphasize the importance of early diagnosis of syphilitic aortitis at a period when there is still the possibility of procuring either a partial curative effect, or of bringing the lesion to a stationary basis instead of allowing it to become progressive.



## LATE SYMPTOMS

For the same reasons, the classical symptoms of cardiac failure of the congestive type need not be described. I would like, however, to call attention in more detail to cardiac failure of the anginal type.

The pain in aneurysm is as a rule continuous, aching, grinding or neuritic, and is often relieved by treatment. In syphilitic aortitis, aside from the precordial distress seen in the early stages, true angina pectoris occurs which cannot be distinguished from that due to arteriosclerosis. Typical attacks of pain with radiation to the inner aspect of the left arm, or of both arms, or in the axillas, or in back of neck along the trapezius, or in the lower jaw, may occur. If the patient is hyposensitive, very little pain may occur, in fact death can occur in an attack without pain, "angina sine dolore". Libman<sup>13</sup> states that in hyposensitive patients the pain may be very slight, even with a severe lesion, and it is often referred to opposite side of body. Patients are classed by him as hypo, normal or hypersensitive according to the amount of pain elicited by pressing with the thumb over the styloid process and upon a branch of the auricularis magnus nerve. This causes pain in some individuals and not in others.

It is the opinion of many observers that angina pectoris and other forms of cardiac pain are less frequently seen in the negro, and this in spite of the fact that aortitis of syphilitic origin is of common occurrence. My experience has been that cardiac pain in the colored race is less frequent than in the white because of the fact that these people are usually hyposensitive to pain. They have pain but usually bear it without complaining, and often refer to it as "misery" only.

In persons suffering from coronary disease of all kinds, occlusion or thrombosis takes place in about 20%. Therefore, we occasionally have this important clinical disaster in syphilis. The pain may come on suddenly and without previous warning of serious heart disease. It is similar to the pain in angina, but more severe, and prolonged, lasting for many hours in some instances. It is not relieved by vasodilators, and even morphin in

large doses may be powerless to relieve the agony. The attack in many instances (also anginal attacks) comes on after a heavy meal, usually the evening meal. The over distension of the stomach with food and gas elevates the dome of the diaphragm. This has a hinging effect on the base of the heart, kinking the coronaries near their origin. The pain may be referred entirely to the epigastrium, associated with tenderness, nausea and vomiting and rigidity and simulate an acute surgical abdomen. Libman<sup>14</sup> states that thrombosis is more apt to be accompanied by gastric symptoms than any other forms of coronary disease. It is frequently diagnosed as ptomaine poisoning. There is often a fall in blood pressure; some times a very marked fall with collapse and shock. If this is followed by cardiac failure of the congestive type, it is presumptive of coronary occlusion. Libman<sup>14</sup> has diagnosed occlusion of the right coronary artery from the early and marked swelling of liver. Approximately one-third of the patients recover from the attack. Recovery is more apt to occur when the collateral circulation is not blocked by disease of the finer branches of the arteries. Death is due to ventricular fibrillation. If the patient lives, the following sequence of events follows closure of the artery: infarction of heart muscle, reactive pericarditis over area of infarction and a more or less latent period followed by aneurysm of the heart, rupture of the heart, or death from myocardial insufficiency (Kernig and Sternberg, Libman).

## DIAGNOSIS

It must be at once recognized that the diagnosis and proper treatment of cardiac syphilis are no longer to be trusted to the ordinary skin specialist or dermatologist or urologist, as it necessitates a thorough understanding of internal medicine and neurology. A good history is of great importance. The date of infection, the mode of diagnosis employed, the amount and kind of treatment given, and the reactions to this treatment should be obtained. The reports of previous Wassermann reactions or other laboratory tests should be noted in the history.

The next procedure is a thorough physical

examination using the good old fashioned methods of inspection, palpation, percussion and auscultation. A careful search for signs of old or latent syphilis on the skin, mucous membranes and in the viscera should be made. A neurologic examination, with special attention to the size of the pupils, their irregularity, their reaction to light, the condition of the discs, the presence or absence of knee-jerks, Romberg, etc., must be made, as around 60% of persons having cardiac syphilis show involvement of the nervous system.

The physical examination should be confirmed by certain highly technical procedures. A fluoroscopic examination of the chest is desirable, with a 6 foot picture of the heart for size, if necessary. Many aneurysms are discovered by this method which cannot be detected by physical signs. The present status of the patient must be ascertained by having a blood Wassermann. With the Kolmer technic, some 80% of cardiac syphilis should show positive reactions. Remember that negative reactions do not exclude old syphilis, as in general some 40% of old and latent syphilis cannot be discovered by any known laboratory methods, and resort must be had to careful physical findings. A complete report on spinal fluid, including cell count, globulin, behavior to colloidal gold and Wassermann, should be made if necessary.

Of great importance, before treatment can be decided upon, is determination of the present condition of the myocardium. Has there been recent or old damage to the myocardium? It is impossible by even our careful physical findings and respiratory tests to obtain this information without use of the electrocardiograph. In my opinion, intensive treatment should never be undertaken in any case of cardiac syphilis without a careful interpretation of the patient's electrocardiograms. One of the most common faults found when there have been myocardial changes from coronary disease, is the inversion of the T wave in either or both of lead I. and II. The low voltages and variances in QRS complexes and the evidence of ventricular preponderance are to be specially noted.

## TREATMENT

Intensive treatment is desirable and should be given in early aortitis when there are no coronary, myocardial or cerebral signs or symptoms. The patient must be questioned concerning angina or cardiac pain. A complete physical examination must be made. There must be a neurologic examination and the myocardium as nearly as possible shown to be in fair condition by the additional use of the electrocardiograph. By intensive treatment we mean a period of previous desensitization of the latent syphilitic with mercury or bismuth in order to avoid a Herxheimer reaction. This is followed by the administration, with great care, of a course of about 8 weekly intravenous arsphenamins; using arsphenamin in preference to neo and all other preparations. The foregoing to be followed by weekly intramuscular injections of bismuth or mercury, the bismuth to be preferred for some 15 doses, and such a course repeated after suitable rest periods according to the progress of the case. With this treatment, cases may be practically cured provided the process has not reached the openings of the coronary arteries. The lesion at least stands a good chance of being changed from a slowly progressive disease with a fatal outcome into a stationary one not incompatible with many years of life.

Intensive treatment of perhaps a little milder nature may and should be given in most cases of aneurysm, especially those in which there is considerable peri-aortitis and mediastinitis. The symptoms of pain are often miraculously relieved, as well as pressure symptoms, by the melting away of the mediastinal factor. The physical signs, however, may increase. The aneurysm is, of course, not cured but arsphenamin is of more use in this class of cases than it is in aortic regurgitation. Aneurysms with considerable fibrotic changes are not so benefited. Intensive treatment is only dangerous when given in aneurysms with thin walls. Intensive treatment is dangerous and should not be given when there is a history of symptoms indicating coronary involvement or myocarditis. This should be confirmed by all the physical tests known to



internal medicine, especially the electrocardiograms. The administration of arsphenamin or any of its offsprings in such cases may at the first injection produce a localized edema in the lesion (Herxheimer) and lead to sudden death (coronary). If the patient recovers, the rapid healing of lesions about the coronaries with scarring and shrinkage will cause narrowing and atresia and increase the symptoms. The effects of a healed lesion may leave the patient in a worse condition than before treatment (therapeutic paradox of Stokes). Similar rapid healing and the strain of reactions in cases in which there are pronounced myocardial changes may produce a slower death from cardiac failure of the congestive type.

Intensive treatment with the intravenous use of arsphenamin in well developed cases of aortic regurgitation is dangerous, and if it does not kill the patient gives little relief or benefit. This I know is contrary to what some writers say but it is my opinion and I believe also that of Stokes.

It is of prime importance that in these late stages of cardiac syphilis we treat the patient and not the disease.

#### PROGNOSIS

Syphilitic aortitis may be latent for as many as 40 odd years. There is no doubt that in many cases life is not appreciably shortened and that the lesion seen at autopsy as a healed, puckered, fibrotic, wrinkling of the aorta, is only a historic landmark. In these cases there has been no extension to the aortic cusps, and the patches of sclerosis have been away from the orifices of the coronaries.

If the disease happens to be in proximity to the coronary arteries and if there is encroachment on the aortic valve, symptoms and signs of angina or aortic regurgitation soon develop. After the first clinical manifestation the average length of life is about 2 years, regardless of whether treatment is given or not. If careless and intensive treatment is given, the time is much shorter, and there is always the possibility of sudden death.

Aneurysms, especially those higher up on

the aortic arch, may exist for many years, in contradistinction to the coronary cases and those of aortic regurgitation.

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### THE TREATMENT OF CEREBROSPINAL LUES, WITH SPECIAL MENTION OF TYPHOID THERAPY

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Some of the specific therapy methods that have been used in the treatment of cerebrospinal syphilis are:

- (1) Original Swift-Ellis treatment.
- (2) Ogilvie modification of Swift-Ellis treatment.
- (3) Cerebral puncture or intracranial method, by Wardner.
- (4) Bichloride of mercury serum, by Byrnes.
- (5) Cotton

methods: (a) introduction of Ogilvie serum by cerebral and intraventricular puncture; (b) introduction of bichloride of mercury serum by intracranial and intraventricular puncture. (6) Administration of salvarsanized serum by intraventricular puncture, Hammond and Sharp.

The above methods have been practically discontinued, due to the fact that the results obtained were not entirely satisfactory. Later, recognizing the beneficial effects of intercurrent febrile disease in paretics, nonspecific therapy was introduced. In 1887, Wagner Von Jauregg began inoculating paretics with Koch's tuberculin; this was succeeded by typhoid vaccine; later by various other proteins; and then, finally, in 1917, malarial treatment was begun. It is rather early to state exactly the true value of malarial treatment, but there is no doubt that we have some very good results even though the treatment is very drastic.

In July of 1926, M. M. Kunde, of Chicago, revived the use of protein therapy in the treatment of paresis, using typhoid vaccine intravenously, and it is to this line of treatment that we wish to pay special attention, believing at this time that our results warrant a comparison with results in malarial treatment.

#### VACCINE USED IN INTRAVENOUS TYPHOID THERAPY

(1) Typhoid vaccine combined: Typhoid bacillus 1000 mil. per c.c.; paratyphoid bacillus A 750 mil. per c.c.; paratyphoid bacillus B 750 mil. per c.c. (2) Typhoid vaccine plain.

Type of vaccine used does not influence the reaction. Dosage: Initial dose 200 million bacilli. Although at times we begin treatment with 100 million bacilli, we have used 2400 million bacilli without any deleterious effects.

In typhoid therapy, the patient has chills and fever as in malaria; they commence, as a rule, 30-60 minutes following inoculation and continue up to one hour. Some patients have more than one chill. Some, especially those previously treated with malaria, present less reaction, sometimes no

chill at all, but have a high range of temperature; up to 105.4° F. High temperature in typhoid therapy usually lasts 6-8 hours, but in 3 of our cases the temperature remained above 100° F. for more than 18 hours. As a rule, the fastigium is reached 2-4 hours after the beginning of the chill. In typhoid therapy there is not the danger as in malaria, nor is there as much untoward reaction and prostration. On the day following an inoculation with typhoid vaccine the patient is up and around as if nothing had happened. Dose of typhoid is easily regulated and can be quickly stopped.

In both series, malarial and typhoid patients put on weight following the treatment. In typhoid therapy we have thus far observed that the range of temperature is much higher, as a rule, in the white race than in the colored. In typhoid, if the interval between inoculations is lengthened (our interval is about 5-6 days) then following the succeeding inoculation the reaction is very good without increasing the number of typhoid bacilli to any extent; and it seems that if the inoculations are given frequently, say every other day, then the patient soon develops an immunity. Following typhoid therapy we have noted that in 3 cases the patient developed convulsions; in 2 the seizure was slight, lasting but a short time, and in the third the patient had a series of seizures during a period of 3 hours.

In typhoid therapy, the patient has a chill and fever following each inoculation. However, in 1 case previously treated with malaria there was no chill during the whole course of the treatment, but the range of temperature remained high.

In malaria, we noted that the negro and Hebrew seemed to have some immunity and did not have very much of a reaction, but in typhoid therapy the opposite is true. One case previously treated with malaria showed a better reaction 8 hours after typhoid inoculation; while ordinarily the fastigium occurs 2-4 hours following the chill. The temperature is relatively slightly higher in malaria, although the temperature in typhoid therapy often reaches 105° F. or higher.



**Serologic changes.**—As a rule, in treating cerebrospinal lues we are not so much interested in the serologic changes as we are concerned with clinical results. At times, too much attention is given to treating the Wassermann and spinal fluid results instead of treating the patient. Ordinarily there is little change, serologically, in either malaria or typhoid. We have in many cases, in both malaria and typhoid treatments, noted the changes in cell count, globulin, sugar content and gold chloride reaction. In one case following treatment with typhoid there was a very marked serologic change; January 22, 1927, blood 4+, spinal fluid 4+, cells 42, globulin 3+, sugar content .053%, and following course of typhoid the result on May 28, 1927, was, blood 1+, spinal fluid negative, cells 24, globulin 1+, sugar content .060%.

We have observed in several cases previously treated with malaria and showing but little or no improvement, but which were, after an interval of several months, given typhoid intravenously, a fairly marked improvement both mentally and physically. We have been using typhoid therapy for more than 8 months and our results thus far are encouraging enough to warrant its continued use. We have just started a series of cases upon a combined treatment, consisting of typhoid vaccine and neosalvarsan.

#### CASE REPORTS

Case 1. W. T., aged 37, white, married, bricklayer, admitted February 8, 1927. Onset began 6 weeks before admission; became upset; excited; talkative; reacted to auditory hallucinations; had delusions; memory disturbance; disoriented. Blood 4+, spinal fluid 4+, cells 17, globulin 2+, gold chloride 3,332,100,000. Was given a course of typhoid vaccine intravenously; consisting of 18 inoculations. Following treatment blood was 4+, spinal fluid 4+, globulin 2+, cells 3. Patient showed marked improvement, became oriented, quiet, memory became normal, physical condition up to par, no hallucinations or delusions elicited. Insight and judgment good at

this time. Patient is now ready to be discharged from the hospital and considered very much improved.

Case 2. J. S., colored, male, aged 68 years, widowed, laborer, admitted January 18, 1927. Onset 6 months prior to admission; frequently wandered away from home; memory impaired and showed signs of deterioration; confused; disoriented; depressed; speech defect marked. January 22, 1927, blood 4+, spinal fluid 4+, cells 42, globulin 3+. Received one course of 18 typhoid intravenous injections. Following treatment blood became 1+, spinal fluid negative, cells 24, globulin 1+. Patient improved very much physically, but mentally there was little change. This case is reported to show the marked change in the serologic findings.

Case 3. J. M., male, white, age 28, married, laborer, admitted January 17, 1927. Onset 3 weeks previously; nervous; unable to sleep; disoriented; no insight or judgment; various pains; Romberg and Babinski positive. Blood 4+, spinal fluid 4+, cells 100, globulin 3+, gold chloride 4,444,320,000. Received typhoid therapy, following which blood was 4+, spinal fluid 4+, cells 9, globulin 3+. Patient showed marked improvement and was discharged from the hospital 5 months after admission.

Case 4. P. B., colored, age 27, single, laborer, admitted May 26, 1927. Onset began several months prior to admission; became very forgetful; antagonistic; not conscious of surroundings; dull and apathetic; weak and had to be assisted; flight of ideas; hallucinations. Blood was 4+, spinal fluid 4+, cells 667, globulin 4+, gold chloride 1,223,332,100. Following but 4 intravenous injections of typhoid vaccine this patient showed much improvement; he is brighter, memory improving, physical condition better, and we are hopeful of a very good result.

In closing, we feel that:

(1) In treatment of cerebrospinal lues, nonspecific therapy has a place and has proven its effectiveness.

(2) That thus far our results with ty-

phoid therapy have been practically as good as with malaria.

(3) That typhoid inoculation is very much less dangerous than malaria.

## DIABETIC COMA

### Report of An Unusual Case; Recovery

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This case presents 3 features which merit reporting: (1) the high initial doses of insulin (600 units between 11:00 a. m. and 5.00 p. m.); (2) the delayed occurrence of 4 mild hypoglycemic shocks (1 atypical); and (3) the blood sugar findings during 2 of these hypoglycemic attacks prior to the therapeutic administration of carbohydrates.

Abstract of case report: Z. A., white, male, aged 20, admitted to the Barnert Hospital April 8, 1927, discharged May 19, 1927. His chief complaints were: polydipsia of 1 month's duration; that this condition was getting worse and that the coating on his tongue was becoming very annoying. His mother, aged 38, has diabetes mellitus. The patient had chronic osteomyelitis of 9 year's duration, with a draining sinus in the right inguinal region. He has had no perversions of appetite.

Physical examination reveals an undernourished and underdeveloped person. Temperature 98.2°; Pulse 115, Respirations 22, and very deep. The odor of acetone may be detected. He is restless and semiconscious but may be sufficiently aroused to answer questions when spoken to sharply. His eyeballs are soft (Krauss' sign). Tongue thick and very red. Some dental caries present. Supraclavicular depressions are present. His chest is thin-walled with the percussion note dull all over posteriorly, more so on the left side. Post-tussle râles may be heard over the left supraspinous fossa. Heart sounds are soft. Abdomen

negative. A draining sinus is exhibited in the right inguinal region. The clinical impression is diabetes mellitus, with coincident tuberculosis, pulmonary and osseous. Roentgenograms, April 21, revealed chest negative, many calcified areas in the abdomen, with absorption of the greater and lesser trochanters of the femur. There was almost complete destruction of the acetabulum. X-ray diagnosis: Tuberculosis of right hip.

On April 8, the day of admission, the patient was placed on a diet of carbohydrates 50 gm., protein 50 gm., and fats 75gm., with fluids forced as follows: first hour, 8 oz. of hot black coffee; second hour, 8 oz. of broth; third hour, 8 oz. of water with 4 gm. of sodium bicarbonate; fourth hour, 8 oz. of plain water. Meanwhile laboratory work was instituted, the urinalysis indicating the presence of 4.3% sugar with both acetone and diacetic acid strongly positive. A blood sugar analysis, done the next morning, before breakfast, showed 416 mg. of sugar per 100 c.c. of blood. The patient was getting worse, so insulin treatment was instituted at once. The heart was supported by digitalis; 4000-5000 c.c. of fluids were administered daily by mouth, by vein, and by hypodermoclysis as conditions permitted.

April 10: Patient clinically improved.

April 12: 8:45 p. m. patient hasn't felt well since supper. He feels "groggy" and "sees double". Also feels hungry. One full glass of orange juice given. At 9.00 p. m. patient still sees double and feels very hungry, so a second glass of orange juice, in which 20 gm. of dextrose was dissolved, was given. 9.45 p. m. patient improved.

April 14: 8.30 p. m. Atypical insulin shock. The patient voided involuntarily. He seemed to have developed a rash, with tiny vesicles all over body. He was stuporous. This phenomenon was observed by Drs. Sidenberg and Willinger and was interpreted as being a hypoglycemic state. The administration of 1 glass of orange juice and 1 teaspoonful of cane sugar in water brought the patient out of this state.

April 26: The patient had a hypoglycemic attack at 6.50 p. m. He was in a daze and



responded to questions in an irrelevant manner. A sample of blood, taken during attack, showed 32 mg. of sugar per 100 c.c. of blood.

April 29: The patient was found in a dazed condition at 2.50 p. m., responding irrationally to questions and about 3.00 p. m. was not responding at all. Blood for sugar analysis was taken and 59 mg. of sugar per 100 c.c. of blood was shown. The patient was perspiring and his lips were twitching occasionally. Following the taking of blood for sugar analysis, 3 glasses of orange juice were given, 2 of them sweetened with 3 teaspoonfuls of sugar, 1 sweetened with 10 gm. glucose. One-half glass sugar water was also given. These were administered between 3.05 and 3.30 p. m. By 3.20 p. m. the patient was reacting normally, responded to all questions, and became brighter.

Initial doses of insulin: The administration of 600 units of insulin between 11 a. m. and 5 p. m. on the first day appears to be the highest amount ever given to a patient in that interval of time. It is safe to say that the concomitant administration of orange juice or glucose acted as a safety valve and lessened the danger of severe hypoglycemic shock.

Langley<sup>(1)</sup>, in 1925, gave 100 units of insulin on the first day, 260 on the second, 190 on the third, 120 on the fourth, 134 on the fifth, 215 units on the sixth, and 150 units on the seventh day, making a total of 1169 units in one week. Joslin<sup>(2)</sup> in 1923, reports using 60 units in the first 12 hours and 100 or more in a few cases. Evidence of the extreme caution exercised by the first users of insulin is indicated by the 10 unit doses, given every hour, for 2 to 4 doses and then every other hour for 4 doses if

TABLE I  
(April 9, the first day of insulin therapy.)

11:00 a. m.	50	insulin intravenously.	200	c.c. orange juice per os.
12:00 a. m.	50	" "	200	" " " " "
12:30 p. m.	50	" "	20	gm. glucose intravenously
1:30 "	50	" "	200	c.c. orange juice per os.
2:00 "	50	" "	200	" " " " "
2:50 "	100	" "	200	" " " " "
3:50 "	100	" "	200	" " " " "
4:50 "	150	" "	300	" " " " "

COMMENTS

On the first day the urinary sugar was my only guide to the administration of insulin. Neither CO<sub>2</sub> tension nor plasma bicarbonate values were used since the equipment for such determinations was not readily available. Blood sugar analyses were made often and were quite informative, as will be brought out later. I watched this patient continuously for the first 3 days and quite closely thereafter until the end of my service. On May 1, Dr. I. Sidenberg took charge of this case but instituted no changes whatever in the treatment, discharging the patient much improved on May 19. The details relating to cardiac stimulation, diet, and the forcing of fluids are purposely not dwelt upon since nothing new is disclosed by them.

necessary, though it must be noted that the value of these units was greater than those in use today (Joslin<sup>(3)</sup>). Foster<sup>(4)</sup>, in 1925, in 20 cases, administered 110 to 380 units of insulin in the first 12 hours. In discussing my case at one of the meetings of the Barnert Hospital Clinical Society, Dr. L. G. Shapiro stated that he had in one instance administered 460 units of insulin between 7.00 o'clock at night and 6.00 o'clock the following morning in a case of diabetic coma, which likewise recovered. With respect to my case, Dr. Shapiro expressed the belief that I might have gotten along on smaller initial quantities of insulin. In retrospect, I am inclined to agree with him, though the presence of the draining tuberculous sinus, and the apparently very poor prog-

TABLE II  
DIABETES CHART

Date	CH	DIET		Total Calories	SUGAR %	URINE		BLOOD		MISCELLANEOUS	Remarks
		P	F			Diacetic	Aceton	Sugar	Weight		
4/8	50	50	75.	1075	4.3	+	+				
4/9	25	35	75	900	+	+	+	416		600	
4/10	25	35	75	900	—	+	+		107	200	
4/11	25	35	75	900	—	+	+	218		125	
4/12	95	35	75	900	—	+	+			115	8:45 p. m. Hypoglycemic attack. (See text)
4/13	35	50	65	925	—	+	+	273	103	100	
4/14	75	60	75	1115	—	—	+	277		100	8:30 p. m. Hypoglycemic attack. (See text)
4/15	50	75	75	1175	—	—	+			80	
4/16	50	75	75	1175	—	—	+			70	
4/17	50	75	75	1175	—	—	—		109	70	
4/18	50	75	75	1175	—	—	—			70	4/18; 8:15 a. m. Blood sugar 299, 15 min. after 30 U. insulin
4/19	50	75	75	1175	—	—	—			70	
4/20	50	75	75	1175	—	—	—		113	70	4/18; 2:30 p. m. Blood sugar 102, 2½ hr. after 20 U. insulin
4/21	50	75	75	1175	—	—	—			90	
4/22	50	60	90	1250	—	—	—			90	
4/23	50	60	90	1250	—	—	—			90	4/19; Blood sugar 344, 255, 126, 194. (See text re these B. S. values)
4/24	50	60	90	1250	—	—	—			90	
4/25	50	75	100	1400	—	—	—	272		90	
4/26	50	75	100	1400	—	—	—	32		80	6:50 p. m. Hypoglycemic attack. (See text)
4/27	50	100	125	1725	—	—	—			80	
4/28	50	100	125	1725	—	—	—		110	50	
4/29	130	100	150	2270	—	—	—	59		45	2:50 p. m. Hypoglycemic attack. (See text)
4/30	50	100	150	1950	—	—	—			45	
5/4	50	100	150	1950	—	—	—	283		45	
5/11	50	100	150	1950	—	—	—	246	112½	45	(May 17)



nosis were my indications for administering the heroic doses I did.

Hypoglycemic shocks (one atypical).—On 4 occasions, April 12, 14, 26, and 29, the patient was discovered in hypoglycemic shock. That these were cumulative insulin effects is indicated by the fact that all of these insulin shocks occurred in the afternoon, 1 shock about 3 hours after the second daily dose of insulin and 3 shocks about 2 or more hours after the third and final daily dose of insulin. Furthermore, inasmuch as the patient's urine was sugar free at a high blood sugar level (about 280) when the first 2 attacks were witnessed, I began to come to the erroneous conclusion that these insulin shocks were occurring at blood sugar levels well above normal (above 120 and below 280). This erroneous impression gathered strength upon reading the Major and Davis<sup>(5)</sup> report of 8 cases with high blood sugar values in the absence of glycosuria. They state that attempts made in

normalcy. These sugar values were very illuminating. The first one of these disclosed 32 mg., the second 59 mg. of sugar per 100 c.c. of blood. To further demonstrate the extreme lability of the blood sugar values in this patient, a series of blood sugar determinations were made on April 19 with results as shown in Table III.

Another phase of the 4 shocks witnessed in this case was that they manifested themselves in a very peculiar fashion, and not always as seen during animal experimentation. Joslin<sup>(3)</sup>, citing experimental work on rabbits, states that convulsions were regularly obtained when blood sugar values averaged 0.047%. In 1 rabbit out of 26, convulsions occurred at a blood sugar level of 0.067%. The minimum blood sugar levels reached without convulsions was 0.037%. Gottstein and Bohe<sup>(6)</sup>, in 1926, state that atypical insulin shocks do occur, 1 case exhibiting a bradycardia in the pres-

TABLE III  
(Blood sugar values on April 19.)

7:00 a. m. Before breakfast	344 milligrams
8:00 a. m. 1 hour after breakfast and after the administration of 30 units of insulin	255 "
11:25 a. m. Before lunch	126 "
3:15 p. m. After lunch and 3 hours after the administration of 20 units of insulin	194 "

some of these cases to lower the blood sugar with insulin resulted in mild insulin shock. However, the criticism of this observation is, as was reported by Dr. H. Wassing when I was discussing the Major and Davis work with him, that no blood sugar values were reported in their article as being taken while their cases were in shock. It is plain that such a phenomenon, namely, insulin shock in patients with high blood sugar, if true, would be a revolutionary finding. With this point in mind, we watched our patient very carefully and were rewarded on 2 further occasions by witnessing 2 hypoglycemic states. On both occasions, samples of blood for sugar analysis were taken before administering the glucose necessary to restore the patient to

ence of a glycosuria. In my case, there were no convulsions. The patient had attacks of diplopia, hunger, stupor; he responded irrationally to questions; he became cold, clammy, with soft, slow pulse; one night, when seen by Drs. Sidenberg and Willinger of the House Staff, there were tiny vesicles present all over the body. On this occasion there was also involuntary micturition. These 2 phenomena are, I believe, atypical.

Blood sugar analyses had been run at regular intervals (Table II), the before-breakfast values ranging from 246 to 416 mg. of sugar per 100 c.c. of blood. The urine became and stayed sugar free, acetone negative, the diacetic acid negative, as indicated in Table II. The sinus discharge changed from a purulent to a serous one.

## SUMMARY

(1) An unusual case of diabetic coma with recovery, in a tuberculous patient, aged 20, is reported.

(2) The administration of 600 units of insulin between 11 a. m. and 5 p. m. is believed to be the highest amount ever given in a similar space of time.

(3) Four insulin shocks (1 atypical), are described.

(4) The blood sugar values during 2 of these shocks are reported.

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## THE "CAN'T-BE-DON-ER"

There's a thousand "Can't-be-don-ers"

For one who says "It can";

But the whole amount of deeds that count

Is done by the latter clan.

For the "Can't-be-don-ers" grumble

And hamper, oppose and doubt,

While the daring man who says "it can,"

Proceeds to work it out.

Oh, the "Can-be's" clan is meager,

Its membership is small,

And mighty few see their dreams come true,

Or hear Fame's trumpet call;

But it's better to be a "Can-be,"

And labor and dream and—die,

Than one who runs with the "Can't-be-done's"

Who haven't the pluck to try.

—Berton Braley.

## "I'D LIKE TO, BUT I HAVEN'T THE TIME"

How often we hear that expression. Yes, and how often we say it ourselves—salving our consciences, as it were, for not doing some of the things, which we know down deep in our hearts we should do.

Every morning each of us is given 24 hours—not a minute more or less. The allotted time is the same to everyone, and cannot be changed.

We can't save an hour from one day and add it on to the next, nor can we borrow any time from tomorrow.

This is true of *all* time to *all* men—whatever their station or position in life.

Many times have we looked enviously on the fellow, who is accomplishing so much during his allotted time. Yet his day has only 24 hours, just the same as yours and mine, but he has learned to manage his time, so that it yields him big returns. How futile then is the expression, "I'd like to, but I haven't the time."

—The Kalends.



# JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

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Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

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## THE PASSING OF A DISTINGUISHED MEMBER

In another column we are publishing an appropriate obituary note upon the departure of William J. Chandler from our midst. The last 2 years have dealt harshly with the Medical Society of New Jersey in that death has taken toll of so many of our "elder statesmen"; from the Board of Trustees, alone, we have lost Johnson, Maghee, Strock, Fisher and Chandler, and it was but a short time before that David C. English was called.

Of all those who have rendered good and faithful service to organized medicine through this state society, none exceeded in merit, the Editor and the Secretary, English and Chandler, whose labors in their respective offices were of such excellence and of such long duration as to make them stand out as great men.

Dr. Chandler served as Recording Secretary of the Medical Society of New Jersey for a total of 20 years, his 2 periods of service, 1897-1912 and 1918-1923, having been broken by an interval during which he passed up to and through the Presidency. In an address to the House of Delegates in 1925, he stated that between 1870 and 1925 he had missed but one of the Society's Annual Conventions. What a record! Only one absence during a period of 55 years. In this respect, as well as in his noble character, courteous personality and ethical conduct, he was a shining example to his confrères of the medical profession.

"Some greater service has beckoned him,

Song of some angel singer—

But down our years his name will shine,

The matchless, brave Light-Bringer!"

## COUNTY SOCIETY WORK

We have frequently, when addressing county society meetings, called attention to the general excellence of the reports sent in for publication in this Journal, proclaiming our own opinion that much of the material so presented is of scientific value equal to the matter appearing under the caption of "Original Articles." We are pleased to observe recently that another state society-journal had called attention to this department of your publication and directed attention of its own supporters—somewhat enviously—to our claim to have published last year a prompt report of every county society meeting held in the state. We had no intention to indulge in vain boasting, for numerous as these reports have been, and as good in quality as many of them regularly are, we are not entirely satisfied with the record. There is a justifiable pride in having our reporters send in their records promptly, even in the feeling that few if any other states can match the New Jersey record in this respect, but there is an unevenness about these reports that is not pleasing, and we admit that in order to secure reports regularly from all the counties, this office is compelled to "hound" some county reporters every month.

Each society official reporter, chosen for this special duty, ought to take pride in having his county society show up well beside the others. We should like to avoid invidious comparisons, but "the good of the cause" demands that we should direct attention to the constant excellence of the reports from Atlantic, Bergen, Hudson, Morris and Union

counties, and to suggest that other county society reporters may well use these as models.

In connection with the above, the Editor would like also to say that if your county society meeting is not published in the Journal of the month immediately following the date of your last meeting—the fault lies with your reporter. Let each member take an interest in this question and see to it that the work of his own local society is promptly and adequately presented to the Journal. If your reporter is not doing justice to this official position, find out why and remedy the situation.

Having taken this friendly slam at the reporters, let us ask how many presidents and secretaries read the "special attention" article on page 672 of the November Journal? Those officers who complain of having difficulty in securing attendance at county society meetings, or in arranging satisfactory programs, will find a number of good suggestions in that article by one of their number who is not only successful in his society work but seems to find it enjoyable.

A reading of the "Presidential Address" of Dr. Plume, Morris County Society, on page 665, will also prove interesting, and every member should ponder on these questions and then determine to do his full part to aid the secretary and reporter in preparing, conducting and publishing satisfactory reports of society meetings.

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### TRISTATE MEDICAL CONFERENCE

Under "Current Events" we are publishing in this issue of the Journal a complete report of proceedings of the most recent session of this "Conference," believing that the subject dealt with is of sufficient importance to justify the amount of space allotted. Enlightened action upon any public question, especially one calling for the passage of additional laws, can only be had when those interested and the lawmakers have made themselves familiar with all its details. It is surprising how many points of contact, how many far-reaching ramifications, an apparently simple question

may have. A mere review of the need for "state control of private hospitals" disclosed the fact that there are a number of sides to this question which had not been evident at first thought. As further legislation upon this matter will doubtless be asked for in these 3 states, our members would do well to study the question and express their views thereupon.

It is a pleasure to report, in this connection, that the plan of holding periodic conferences of the officers of medical societies in adjoining states, which originated in New Jersey, was the principle topic for discussion at the recent Annual Meeting of Secretaries of State Medical Societies, and that it met with general approval. The New England States have organized a similar body and we anticipate the formation of other state groups, since it is perfectly natural that state societies whose members have the same interests and have normally to deal with exactly the same problems should confer as to uniform methods of procedure.

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### TREATMENT OF CARBUNCLE

In the report of proceedings of the Hunterdon County Medical Society, as published in the November Journal, page 663, will be found description of a new method of treating carbuncles. Dr. Salmon, who presented the method, requests that his confrères give this plan a trial and report their results. Carbuncle is such a distressing affliction and its treatment by the usual methods has been so exasperating that physicians will probably welcome any new therapeutic procedure.

The radical exenteration recommended by Salmon is certainly justified if it will produce the prompt and satisfactory results claimed. In this connection, we would call attention to an interesting article upon the same subject, in the Kentucky Medical Journal, August, 1927, page 416, by Dr. A. D. Willmoth, of Louisville, who advocates surgical diathermy or electrocoagulation, as the best form of treatment for carbuncles, and who concludes with the statement: "Electrocoagulation in carbuncles so far surpasses the old treatment by knife or cautery as to make them obsolete."



## In Memoriam

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WILLIAM JESUP CHANDLER, M.D.

When a man like William J. Chandler drops out of humanity's procession, a natural born leader is lost.

This was preëminently true of our departed friend. For many long years he had been the guide and counselor of his town, county and state organizations and had come to be an undisputed authority in the conduct of the business affairs of medical associations. His opinions and his rulings were based on a long and careful study of medical matters and when his views were once stated few cared to oppose them, as in the great majority of instances they were usually found to be correct. The Essex County men will long remember him, sitting, as was his habit, in a front row at the stated meetings and always ready to advise on doubtful points of medical business or to correct, if the procedure had started in the wrong direction, and to these suggestions of his no one could take offense, as his admonitions were always couched in kindly language and there was clearly no purpose in his remarks except to see business properly conducted.

So, with the passing of Dr. Chandler, who was born on July 11, 1842, and died on October 30, 1927, our profession truly records a grievous loss.

Dr. William Jesup Chandler's birthplace was at Montrose, Pennsylvania. His father was Francis B. Chandler, who was born in New England, and his mother was Mary Jesup, also of New England nativity. The family came to Massachusetts in 1637. Mrs. Chandler's brothers went to Beirut, Syria, as missionaries, and were professors in the University of Beirut.

Dr. Chandler prepared for college at Homer, New York, was graduated from Yale University in the Class of '64, and won election to the Phi Beta Kappa, an honor which means much as an evidence of his collegiate standing. He was graduated in medicine, at the College of Physicians and Surgeons, of New York, in the Class of '67, and then served as an intern in Bellevue Hospital. Upon leaving Bellevue he settled in South Orange, N. J., where he resided until the last few years of his life.

In 1871, he married Miss Jennie Milligen, of South Orange, a member of an old New York family, by whom he had 4 children, 2 daughters and 2 sons. Dr. Harry Chandler, a son, is at present on the staff of the New York State Hospital at Utica. A daughter, Mrs. Meeder, now occupies the family homestead at South Orange. Mrs. Chandler died many years ago, and in 1912 Dr. Chandler married Mrs. Caro Talley, of Florida.

When the Orange Memorial Hospital was established in 1878, he was on the original staff as visiting surgeon. That staff consisted of Drs. Pierson, Wilmarth, Chandler, surgeons; and Drs. Corson, Wickes and Thompson, physicians. All of these men have gone to their reward. Dr. Chandler served on the staff until December, 1907, when he resigned because he had reached the retiring age of 65 years.

He was attending surgeon on the staff of Saint Barnabas Hospital for over 30 years, and for several years was connected with the Eye and Ear Clinic at Saint Michael's Hospital. After retiring from general practice, he was Superintendent of the Soldiers' Home in Kearny, New Jersey.

The last few years of his life were spent in Florida, where he died October 30, 1927, at Miami. Dr. Chandler was elected secretary of the Medical Society of New Jersey in 1898, succeeding Dr. William Pierson, of Orange, who had been secretary for the preceeding 34 years. Dr. Chandler served until 1913, when he was elected third Vice-President, and in 1916 he became President. In 1919, when Dr. T. N. Gray died, Dr. Chandler was appointed Secretary protem. In 1920 he was again elected Secretary and remained in that office until 1923, at which time he resigned and was elected an Honorary Member of the State Society. During most of this period of 25 years he was a very active member and Chairman of the Publication Committee. Dr. Chandler was a particularly hard working and efficient secretary. His colleagues in the State Society will willingly testify to the courtesy and care which characterized his work during a very difficult period of new rules and procedure. He was a member of many medical societies. The American Medical, the Bellevue Alumni, of which he was President in 1904 and later an honorary member, the old Medical Union, the Orange Mountain Medical Society, and the William Pierson Library Association. He was actively interested in his church and acted as organist for many years, afterward serving his congregation as deacon and elder. Dr. Chandler was an earnest student of medicine, reading widely and yet intensively on surgery. He was always interested in new methods and new procedures. That he did good work is proved by the long terms of service in the hospitals with which he was connected. He was intensely interested in professional organizations and a faithful attendant at the meetings of his medical societies, taking an active part both in the scientific and administrative programs. His colleagues had the highest respect for his medical and surgical ability, were always glad to seek his advice in difficulties and to follow his leadership in professional matters.



Special Article

ACTIVE IMMUNIZATION AGAINST  
DIPHTHERIA

Methods for Administering Toxin-Antitoxin  
and the Schick Test

(At the State Conference on Abolition of Diphtheria, held in the State House at Trenton, June 29, 1927, in response to a call issued by the Honorable A. Harry Moore, Governor of New Jersey, the State Department of Health was requested to "prepare an outline setting forth accepted methods of administering the Schick test and the immunizing agent, together with such other correlative information as may be helpful in the conduct of such clinics." The Director of Health, Mr. D. C. Bowen, has prepared the following article for such use, and in addition to presenting it to the medical profession through this Journal will publish it in Health News and in pamphlet form for the use of those engaged in the antidiphtheria campaign.—Ed.)

Diphtheria can be controlled and practically eliminated as a cause of illness and death, by the use of toxin-antitoxin. The state-wide campaign against this disease in New Jersey is based on this fact. In order to secure some degree of uniformity of procedure in this campaign, the recommendations contained in this circular are offered. These recommendations cover the recognized technic of giving toxin-antitoxin and the Schick test, designate the persons to whom the treatment and test should be given, and describe the organization that has been found satisfactory in conducting clinics in schools or other public places. Because it is recognized that some physicians who have hitherto had little or no experience in this work will be called upon to take part in the campaign in their communities, details have been given for those procedures in which accurate technic is essential to success. In dealing with large numbers, a smoothly functioning organization is necessary for careful, accurate, rapid work, and where such an organization is developed, several hundred children can be treated in one day without haste or confusion.

PART I .  
TOXIN-ANTITOXIN

Toxin-antitoxin is a combination of diphtheria toxin and antitoxin so proportioned that the mixture is slightly toxic. It is used in small doses to produce active immunity of long duration against diphtheria. It should not be confused with diphtheria antitoxin, which produces a passive immunity of very short duration, usually for only 2 or 4 weeks. Since toxin-antitoxin contains only a minute

quantity of horse serum, it does not cause serum rashes such as sometimes follow the use of antitoxin.

To Whom Should Toxin-Antitoxin Be Given?—All children who are susceptible to diphtheria should be given toxin-antitoxin. Experience has shown that most children between the ages of 6 months and 10 years are susceptible and should be given toxin-antitoxin without a preliminary Schick test. In suburban and rural communities where the percentage susceptibility is usually high, children up to 15 years old may be included in this group. On the other hand, in cities and thickly populated communities, where the percentage susceptibility is usually lower, it may be wise to omit the Schick test only in children below school age. Susceptibility of children over the age limits mentioned and of adults who desire this protection should be determined by a preliminary Schick test before toxin-antitoxin is given.

Three doses of toxin-antitoxin are sufficient to establish immunity in most persons. The small percentage of persons who do not develop complete immunity as a result of 3 doses of toxin-antitoxin and who are shown by subsequent Schick tests to be still susceptible to diphtheria should receive 3 additional doses of this material.

Adults of all ages who have been tested and found to be susceptible to diphtheria may be given toxin-antitoxin, but as they are likely to experience some unpleasant reaction following its use, it is not ordinarily recommended for adults unless their occupations bring them in contact with diseases or with large numbers of children, as in the case of physicians, nurses, teachers and employees of institutions for children.

How Toxin-Antitoxin Is Given.—Toxin-antitoxin is given subcutaneously at weekly intervals in a series of 3 injections. The dosage is 1 c. c. for each injection for all ages except infants under one year, whose first injection should be 0.5 c. c. The mixture is injected preferably by using a 1 c. c. or 5 c. c. syringe with a 25 gauge needle 5/8 of an inch in length.

The sight selected is the upper arm near the insertion of the deltoid muscle. The skin should be sterilized at the site of injection with tincture of iodine. Being of fine gauge, the needle should not be plunged into the skin with a jabbing motion, but inserted by means of a firm, steady thrust well under the skin. It is best to encircle the arm with hand, holding both the arm and skin firmly while the needle is being inserted. (See Fig. 4).

Reactions Caused by Toxin-Antitoxin.—In infants and young children, the local and gen-

eral reactions following injections of toxin-antitoxin are usually very slight or entirely lacking. Children over 12 years old are more likely to experience some discomfort, and adults still more so. Such reactions are believed to be due to a sensitiveness to protein. The local reaction occurring at the site of injection consists of swelling, heat and tenderness, and although the arm may be sore, practically never does this interfere with work or play. The general reaction consists of headache, loss of appetite and fever. This general reaction is much more common among adults than children. These reactions develop within a few hours and disappear in about 48 hours or less. The more severe reactions are milder

Toxin-antitoxin is not a substitute for antitoxin and should not be given to persons ill with diphtheria.

How Immunity Is Established.—The toxin-antitoxin mixture stimulates the body cells to produce a supply of antitoxin, thus creating active immunity to diphtheria. This ability of the cells to produce antitoxin, or the supply of antitoxin so produced, or both, lasts for many years and probably for life. The production of antitoxin by this means takes place slowly so that from 2 to 3 months must elapse before sufficient antitoxin has accumulated to be protective and from 5 to 6 months is required for production to reach its maximum. For this reason, when toxin-antitoxin



Fig. 1. Disinfecting site for injection.

than those following the use of typhoid bacterin.

Contraindications.—It is advisable not to administer toxin-antitoxin to children who are obviously feverish or ill. Toxin-antitoxin should not be given within one month after the administration of antitoxin. It will do no harm to the individual, but the antitoxin, if still present in the body, may neutralize the toxin-antitoxin mixture and render it useless. Toxin-antitoxin does not interfere with the subsequent use of antitoxin if the person treated should develop clinical diphtheria before complete active immunity has developed.

is given in a community in which diphtheria is prevalent, occasional cases of this disease may occur in persons who have received the protective treatment but who have not had time to develop complete immunity.

## PART II

### THE SCHICK TEST

The Schick test is a skin test in which a small quantity of very dilute diphtheria toxin is injected intradermally to show whether or not an individual has sufficient antitoxin in his body to afford protection against diph-



theria; in other words, to show whether he is susceptible or immune to this disease.

**To Whom Should the Schick Test Be Given?**—The Schick test should be given to all persons who have received injections of toxin-antitoxin, from 6 months to 1 year after such injections, to determine if complete immunity has been produced. It should be given to adolescents and adults before the immunizing treatments are begun, to determine whether or not they are susceptible to diphtheria. It is also useful when diphtheria is prevalent to determine whether contacts whom it is proposed to immunize for a short time with antitoxin are susceptible or immune to this disease. The Schick test is given in radermally

technic of giving the control is identical with that used in giving the test, and the material is the same except that the toxin in the solution has been destroyed by heat.

**Technic of the Schick Test Injections.**—Two 1 c. c. Record syringes with 3/16 or 1/4 inch, 2 gauge needles should be sterilized as described elsewhere. If but a small group of persons are to be tested, 1 syringe alone may be used, in which case all the control injections should be given first, then all the test injections, to avoid any possibility of the test material being carried into the control material by the syringe. When 2 syringes are used, one should be used exclusively for the Schick test and the other for the control.



Fig. 2. Position of needle and hand.

on the flexor surface of the right forearm. A very short, sharp, fine needle is required to give the test properly. Since the technic of the test injection must be accurate, if dependable results are to be secured, it is described below in detail.

**The Control Test.**—As some persons are susceptible to protein, which causes them to give a false or pseudo-reaction somewhat resembling a positive Schick test, it is advisable in all cases to give a control test on the left arm. This test should be examined at the time the Schick test is read and serves as a check on the accuracy of the latter. The

The one used for the Schick test should be marked by a rubber band or some other means so that it can be readily distinguished.

When the test and control outfits are opened, the rubber stoppers should be wiped with cotton wet with alcohol. In preparing the material, directions should be carefully followed. To avoid possibility of error, it is well to prepare for use the test material before the control outfits. Thereafter due care should be taken to keep the materials separated. The diluted test material is unstable and should be used within 3 to 4 hours after mixing.

Those to be tested should have both sleeves rolled to above the elbows, so that they will remain in place. The flexor surface of both forearms is then disinfected by rubbing with a pledget of cotton wet with alcohol. (See Fig. 1.) The arms should be kept extended forward until the excess of alcohol evaporates and the injections have been given.

If a physician is working alone, he must be careful not to mix the syringes which might result in giving the injections in the wrong arms, and thereby cause confusion when the reactions are being interpreted. If 2 physicians or a physician and nurse are working together, one should give all the test injections and the other all the controls.

the middle line so that the tips of the little, ring and middle fingers may find support against the forearm, and the hand holding the syringe will be alongside the arm, not over it. (See Fig. 2.) While the needle is held nearly flat with the skin surface, the syringe is pushed forward gently until the eye of the needle is just buried in the skin. If the needle has been inserted properly, the eye can be seen through the overlying portion of the skin as a dark spot. Then while the syringe is still supported between the first and middle fingers, the thumb is transferred to the piston and the injection made. (See Fig. 3.) The thumb is then returned to its first position and

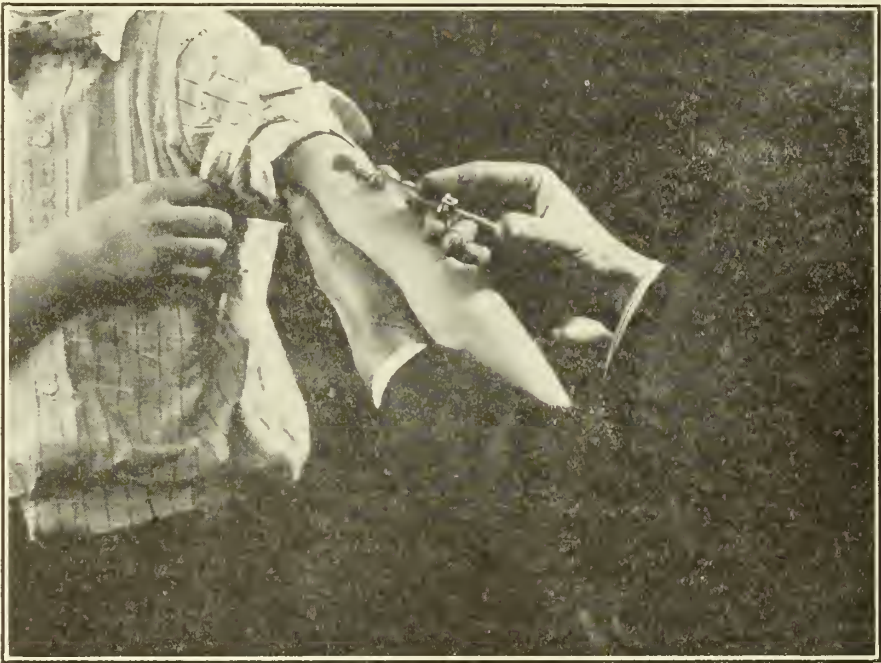


Fig. 3. Making injection.

The injections are made preferably in the middle line about one-third of the distance from the bend of the elbow to the wrist. The left hand is placed under the extended and supinated forearm, and the arm grasped in such a way that the skin is made taut in the space between the thumb and fingers. With the barrel of the syringe held between the first and middle fingers of the right hand, and steadied by the thumb upon the metal hub at the open end of the barrel (not upon the piston), the needle with the eye opening upward is placed nearly flat upon the surface of the taut skin. The syringe is held at an angle with

the needle withdrawn. Just as the injection is made, the grasp of the left hand is loosened enough to relieve the stretch of the skin. The needle should be immediately wiped off with cotton saturated with alcohol.

If the needle is properly inserted, the injection causes a distinctly circumscribed wheal, blanched and showing pits from the binding down of the epidermis by the hair follicles and sweat glands. If the injection is too deep, it will cause no more than an evanescent, blanched elevation without distinct margin. Such deep injections will not give dependable readings.



The amount of test material injected is 0.1 c. c. or 0.2 c. c. according to the preparation used. An injection of 0.2 c. c. will produce a wheal about 5/16 inch in diameter, and if the syringe leaks, the size of the wheal must be used as a guide rather than the syringe markings.

To permit rapid work with large numbers of children, a line of 6 to 8 should be maintained between the nurse who cleanses the arms and the physician who gives the tests, to allow the alcohol to evaporate before the physician is reached. The physician should sit with his materials at his right, and with a good light from over his shoulder.

after the tests are given. In routine work, if haste is not necessary, at the end of 7 days is the best time to make the readings as the true reactions are near their height and the pseudo-reactions have begun to fade. A good light is necessary, and the circulation in the arm should not be restricted above the site of the test by tight sleeves or by the arm being forcibly extended; the elbow should be slightly flexed.

#### Negative reaction

If no reaction which persists has developed at the site of either injection by the end of the fifth day, the person tested is not sus-

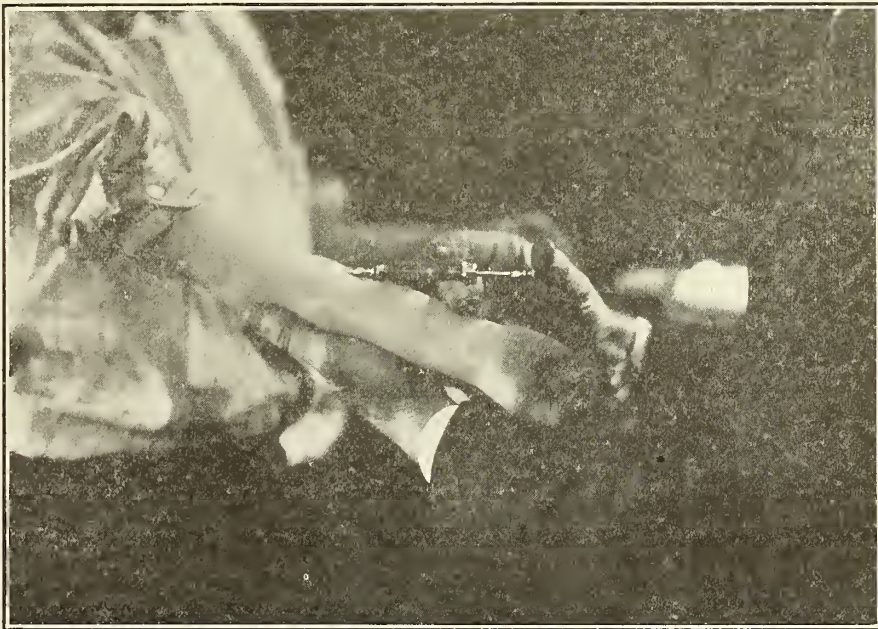


Fig. 4. Needle inserted.

In giving either toxin-antitoxin or tests to children under 3 or 4 years, it is advisable to have them off their feet so that they cannot jump at the prick of the needle. Small children should be held upon the lap of someone sitting upon a stool in front of the physician and with their side toward him. The child's free hand should be held securely to prevent grabbing at the syringe.

Tight sleeves or other constrictions which obstruct the venous circulation above an injection may cause bleeding and should be loosened.

It is not recommended that the Schick test be used without control injections.

When and How to Read the Schick and Control.—The Schick test reaction and the control reaction may be read from 4 to 7 days

ceptible to diphtheria nor sensitive to protein, and the result is "negative."

#### Positive reaction

If a spot, ranging in size from that of a dime to a quarter and varying from pink to an intense red, develops at the site of the test injection after an interval varying from 12 hours to 5 days and persists for 4 days or longer, the individual is susceptible to diphtheria. This is termed a "positive" reaction. A positive reaction is accompanied by appreciable induration and often tenderness, and a strong positive reaction may show a tendency to vesiculate. The spot gradually fades, with pigmentation and desquamation, but it may remain distinguishable for a few weeks or months.

### Pseudo-reaction

If a reaction develops at the site of the control injection, the person is sensitive to the protein contained in the test material. This reaction may be red at first, but by the seventh day it will have assumed a slightly bluish tinge, become smaller, and be less circumscribed than a positive Schick test. If the person is not susceptible to diphtheria, the pseudo-reaction will appear the same on both arms, and the result is recorded as "negative-pseudo." Such pseudo-reactions are particularly common in persons who have been immunized by means of toxin-antitoxin.

### Combined reaction

Should the person tested be sensitive both to diphtheria toxin and protein, the typical red or pink Schick test reaction will appear on the right arm and the less distinct, slightly bluish pseudo-reaction will be seen at the site of the control injection on the left arm. This is termed a combined reaction.

Positive and combined reactions are recorded +, and negative and pseudo-reactions are recorded —. In special instances there may be reasons to note the fact that the reaction was pseudo or combined. For convenient reference, the system of reading and recording just described is shown in the following table:

Schick test	Control	Interpretation
+	—	Positive (Susceptible)
+	+	Comb. (Susceptible)
Atypical	+	Pseudo (Immune)
—	—	Negative (Immune)

**Contraindications.**—The Schick test is not contraindicated in any condition except where the patient is in such a poor state of nourishment that the skin possibly cannot withstand the small mechanical damage caused by the injection. Such cases are exceedingly rare.

## PART III

### PUBLIC IMMUNIZATION CLINICS

**Public Offers of Immunization.**—When it has been decided to offer immunization against diphtheria in a community, it is desirable that the local newspapers carry a notice of the offer and that a public meeting be held at which the procedure can be explained. Such public meetings can often be arranged through the local Parent-Teacher Association. An excellent moving picture film illustrating and explaining the entire subject can be obtained from the State Department of Health, for showing at such meetings.

A letter addressed to parents should be prepared for distribution and a "request blank"

made a part of this letter. In giving toxin-antitoxin to children at a public clinic, it should be an established practice to accept only those whose parents give consent. Therefore, children should be accompanied by a responsible adult or present a request blank signed by a parent or guardian. A sample letter and request blank is shown on page 721.

**Dealing With Large Numbers.**—Where large groups are to be tested or immunized, a routine procedure is necessary to have the work done expeditiously. One physician familiar with the technic and filling his own syringes can give about 125 doses of toxin-antitoxin or about 60 Schick tests and controls an hour. To do this, however, he must have organized assistance. Two persons skilled in the technic of this work, with such assistance, can test or treat 1000 children in a 5 hour school day, even though it be necessary to work in 2 or 3 different schools. A large room with 2 doors should be used, if possible, to permit the children to enter, have their arms disinfected, receive the injections, have a record made of the proceedings and pass out without crowding. A good natural light is needed but direct sunlight should be avoided. The room should be kept cool and well ventilated.

**Records.**—Especially prepared record sheets should be used to make a record of all injections of toxin-antitoxin, tests and results of tests.

When the work is done in schools, a separate sheet should be used for each classroom, on which the teacher, in advance, enters alphabetically the names and ages of the pupils of the class who have presented properly signed requests for tests or treatments. When dealing with other than school pupils, or organized groups under discipline, the records of the first day's work with a group should be subsequently entered upon a regular record blank with the names arranged alphabetically to facilitate the proper entry of subsequent treatments as well as for reference.

**The Personnel Required for Handling Large Numbers.**—One or more physicians. A nurse to disinfect the arms in preparation for the injections. If no nurse is available, of if the nurse is needed to assist the physician, any intelligent person may be quickly instructed to do this part satisfactorily. A clerk to keep the records. The clerk should be a person of quick mind and should, if possible, know the children by name. The speed and smoothness of the work as a whole and the accuracy and value of the records are in a large measure dependent upon the ability and efficiency of the clerk. Someone is needed to keep the children in an orderly line and to see



that they have their sleeves rolled up properly and are ready when their turns come. One or 2 messengers are needed to advise teachers when to send their pupils to the treatment room. Failure to have a new group ready as another is finished results in delays.

**The Materials Used.**—Toxin-antitoxin of strength designated as 0.1 L+ is the one of choice. It can be secured in vials of various sizes from 1 c. c. to 30 c. c. In estimating amounts required, allow 3 c. c. per child plus 10% for wastage. To retain its potency, it should be kept at a temperature under 50° F. but should not be permitted to freeze.

The Schick test materials are supplied in outfits in which there are 2 containers. One container has in it a minute quantity of undiluted toxin and the other such an amount of sterile salt solution as will give the proper dilution when mixed with the toxin. The outfits also contain directions for the dilution and for the amount which should be injected. Outfits on the market vary, some providing a dilution for 0.1 c. c. injections, and others for 0.2 c. c. injections. The outfits are of such size as provide for 10 to 50 tests. In estimating quantities needed, about 20% should be allowed for wastage. The test outfits should be kept at a temperature under 50° F. The test material deteriorates rapidly after dilution and should be discarded after 4 hours.

The control materials come in outfits similar to the test outfits and are used in the same manner. The difference between the test and control materials is that the control material has been heated to destroy the toxin.

When purchased in quantities, the cost of materials for the test and 3 treatments should be about 20 to 25 cents per child. (Of this amount, the test material costs only about 2 cents per child.)

In addition to these special materials, alcohol (95% grain or 92 to 94% medicated) and iodine solution (tincture of iodine diluted with an equal quantity of alcohol) are needed for disinfection of the skin at the sites of injection. A supply of absorbent cotton is needed. If alcohol is used for syringe sterilization, then sterile (boiled) water should be available for rinsing the syringe.

**The Equipment Needed.**—Two 1 c. c. Record syringes for test and control injections. One 5 c. c. Record syringe for toxin-antitoxin injections, although many physicians prefer to use the 1 c. c. syringes for toxin-antitoxin. (The Luer type of syringe is not satisfactory for this kind of work as repeated refillings without repeated sterilizations is likely to carry infection into the barrel of the

syringe with the portion of the piston exposed when the syringe is full. The Record syringe with its slender piston stem, can be refilled repeatedly without contamination of the interior of the syringe.)

Hypodermic needles with Record slip, 27 gauge, 3/16 to 1/4 inch long, for the intradermal (Schick and control) test injections. The points of these needles should have a short taper which makes the proper insertion of the needle easier than a long taper. Special needles are made for this purpose.

Hypodermic needles with Record slip, 25 gauge, 5/8 inch long, for the toxin-antitoxin injections.

A sterilizer.

Small shallow trays (petri dishes are good) to hold the alcohol and cotton used by physician and nurse.

Tables for the physicians, nurse and clerk. Since alcohol attacks paint and varnish, tables with such finishes should have their surface protected.

Chairs for physicians and clerk. When infants are being treated, there should be a stool for the one holding the children during treatment.

Record sheets. (These may be obtained without cost from the State Department of Health.)

**Sterilization.**—At the beginning of each clinic all needles should be sterilized by boiling. Syringes may be boiled or sterilized in alcohol. Repeated boiling tends to cause leaks in the Record syringes. If alcohol is used, the syringe should be subsequently thoroughly rinsed with sterile water to remove all traces of alcohol, which might otherwise destroy the potency of the toxin-antitoxin or Schick test toxin. Instead of boiling needles after each use, they may be sterilized without being removed from the syringe by being wiped thoroughly on a pad of absorbent cotton or pledget of cotton placed in a shallow dish (such as a petri dish) and kept saturated with alcohol. Experience has shown that this technic, if strictly followed, is safe if the site of inoculation is sterilized and the syringes and needles are handled and filled with care. It may be used when giving either tests or toxin-antitoxin.\*

\*Some physicians prefer to boil the needle after each use. If this method is followed, at least 24 needles and several syringes are necessary. A sterilizer must be constantly employed and at least 1 additional assistant is needed to attend to the needles. Care should be taken to cool the needles after boiling and to remove the water from the interior of the needle. More time is required with this method to treat a given number of persons.

Still another method of sterilization which is favored in some localities, consists of flaming a platinum needle after each use. Great care must be taken to have the needle cool before the next use.

**Conducting an Immunization Clinic.**—On the day the Schick test is given, the following arrangement has proved satisfactory: The clerk is located within the room near the door by which the children enter. As each child passes the clerk's desk the date of test is recorded against the child's name. This serves both as a record of date and attendance at the clinic. The child then passes to the nurse, located nearby, who cleanses both forearms. The distance from the nurse to the physician who gives the test should be sufficient for a line of 6 or 8 children, thus allowing time for the alcohol to dry.

The physicians giving the test and control should sit near a window, so that good natural light will fall on the arms, and should be supplied with chairs and small tables holding their equipment. The test is given first, routinely in the right arm, and the control given in the left arm by the second physician or a nurse who is placed a few steps beyond the first. The child, who has kept his place in line since he entered the room, then passes out the exit door. There is no objection to the children standing in line unless they are kept standing too long or the room is hot. By seeing their comrades receive test or treatment with a smile and assurance that it does not hurt, confidence is increased rather than diminished in most cases.

On the day the tests are read, the clerk should sit beside the physician who is to make the readings. The latter should place himself with his back to the window. The children in line come first to the physician, who announces the reading to the clerk. She

makes a plus or minus sign in the proper column opposite the child's name, thus indicating the result of the test and also the presence of the child. The date of reading may be entered at the same time or later. If a plus is recorded and no other note entered, it indicates that the child is also receiving the first immunizing treatment. The date should be entered in the first treatment column. If the result is positive and toxin-antitoxin is refused, this should be noted in the record before the child is allowed to pass.

After the reading has been made and recorded, a child who gave a negative or pseudo-reaction, or whose parents do not wish the treatments given, leaves the room. A susceptible child who is to receive toxin-antitoxin follows a line to the nurse, who sterilizes with dilute tincture of iodine an area the size of a dime on the left upper arm at the insertion of the deltoid. The children in this line move on to the second physician who gives the first immunizing injection of toxin-antitoxin mixture; after which they leave the room by the exit door.

One week later, at the time of the second injection, the clerk sits near the entrance to the room and records the date in the "second treatment" column opposite the name of each child who presents himself. The child then passes to the nurse, who sterilizes a spot on the right arm at the insertion of the deltoid. After the iodine has been applied each child passes on to the physician who gives the toxin-antitoxin injection. The same arrangement is followed at the time the third treatment is given, the injection being given in the left arm.

On the days the toxin-antitoxin treatments are given, 1 assistant (preferably a nurse) should be assigned to fill syringes for each physician giving treatments. Considerable

#### WHOM AND WHEN TO SCHICK TEST AND IMMUNIZE AGAINST DIPHTHERIA

Age Group	Preliminary Schick Test	Immunizing Treatment (First)	Follow-up Schick Test	Immunizing Treatment (Second)
Infants during second six months of life)	Omit	First dose T. A. mixture—0.5 c. c. Second and third doses T. A. mixture—1 c. c. (One week apart)	6 mos. to 1 yr. later	Three doses T. A. mixture if follow-up Schick test is positive
All children under ten yrs. of age (Note)	Omit (unless requested by parent)	Three 1 c. c. doses T. A. mixture (One week apart)	6 mos. to 1 yr. later	Three doses T. A. mixture if follow-up Schick test is positive
Adolescents and adults	Give preliminary Schick test	Three doses T. A. mixture if preliminary test is positive	6 mos. to 1 yr. later	Three doses T. A. mixture if follow-up Schick test is positive

NOTE: In suburban and rural communities this procedure may be extended to children 15 years old. In cities where natural immunity is known to be common all children over 6 may be given a preliminary Schick test.



care and skill are required to do this rapidly and without contaminating the needle or material used.

BOARD OF EDUCATION OF.....  
CITY, BOROUGH OR TOWNSHIP

Dear Parent:

Is your child protected against diphtheria? Each year in New Jersey about 5000 cases of diphtheria are reported and about 500 persons die from this disease. Most of them are children.

Nearly all this sickness and death is unnecessary, for diphtheria can be easily prevented. Three injections, a week apart, of small quantities of toxin-antitoxin make the body gradually produce its own protection against this disease. When this protection is once established it lasts for many years and probably for life. Toxin-antitoxin is not the same as antitoxin which is used to cure diphtheria.

Nearly all young children need this treatment with toxin-antitoxin, because they have not yet developed the protection which nature sometimes gives to older persons. Many older children and adults never develop natural protection. Those who are protected, either by nature or by toxin-antitoxin treatments can easily be identified by means of the Schick test. This test consists of placing a drop of harmless liquid into the skin, and waiting to see if a red spot appears in a few days. If no spot appears the person is protected.

The test and treatment are harmless no matter how young the child. At the point where the treatment is given the arm may become red or inflamed for 1 or two days, but practically never does this interfere with work or play.

Your child should be protected against diphtheria. Don't risk waiting. If you cannot obtain the toxin-antitoxin treatment from your physician, sign the attached request blank and have your child give it to the teacher. He can then receive the treatment and, if necessary, the test at school.

Very truly yours,

REQUEST FOR DIPHTHERIA IMMUNIZATION  
AND THE SCHICK TEST

Board of Education..... City,  
Borough or Township:

I hereby request that my child.....  
..... age.... be given the 3 protective doses of toxin-antitoxin. If it be thought advisable to give a preliminary Schick test, I request that this also be given.

Date .....192

.....  
Parent or Guardian.

Medical Economics

A MEDICAL PROGRAM FOR PRIVATE  
ENTERPRISE AND COOPERATIVE  
COMMUNITY ORGANIZATION

Hugh Payne Greeley, M. D.

(Copied from the Boston Medical and Surgical  
Journal, May 5, 1927.)

In these days of rapid changes in the practice and organization of medicine the medical profession is from time to time confronted with the proposal of State Medicine. Generally the idea is combated strenuously and it is shown most clearly that the results of any such step would be disastrous to individual initiative and to medical standards in general. Few gainsay that this would be the most inevitable result of any such scheme. But, notwithstanding this, the fear that some radical legislature will attempt such a scheme remains as a constant bugaboo to many right thinking well-wishers of medical science and medical practice.

The real reason for this constantly recurring hobgoblin of State Medicine is that no sufficiently workable, constructive plan for doing away with the evils and shortcomings of medical practice has been proposed by the medical profession itself.

It would seem in the first instance that any scheme must preserve the element of competition, must maintain a state of practice where initiative will count, and must above all furnish the means whereby recent graduates of medicine can continue to grow and develop medically. Given the latter opportunity the element of competition as it now exists in small towns and some larger cities would not need to prevail; as it does not even now result in a tendency to raise standards but only to keep them where they are. The young men coming with fresh enthusiasm from school and hospital either cast aside much of their training by settling in small communities where the lack of facilities prevents their practicing medicine as they have been taught, or undertake specialism in a city practice. In either case only the very exceptional man continues to develop. The man in the country almost inevitably retrogresses. The city man having lost the most valuable asset, a general practice, never can be quite the man that he should have been. The loss of perspective due to a man's going too soon into a restricted practice is tragically evident in most special-

ists. The average exemplar of any one of the surgical specialties has a prismatic brain. Every ray of intelligence that enters comes out bent. And then comes the increasing group of medical specialists who while yet interns or even undergraduates become cardiologists, gastro-enterologists or metabolism experts; men who practice medicine by electrocardiogram, by x-ray, or by the hydrogen ion concentration of body fluids. A physician must be broadly trained.

All educators and organizers in the field of medical practice are stressing more and more the fact that the future successful practitioner must be a health specialist and must practice preventive medicine. This idea partly emanates from the fear that if all preventive measures are taken over by organized health departments, treatment of disease will soon be added on. Thus again rises the goblin of State Medicine.

The evils and shortcomings of medical practice today are:

Neglect of preventive medicine and education by the practitioner; failure of good men to settle in sparsely settled communities; over specialization and clinic organizations in cities inability of people of moderate means to get good medicine for a reasonable figure; and inability of the younger men to practice medicine as they have been taught. In the schools and hospitals they were taught to use instruments of precision to the neglect of their native talents, and so without a complete hospital equipment they are at a loss to practice good medicine.

Among the many plans suggested for the relief of these evils have been the establishment of diagnostic centers, community hospitals, county units, or what ever you may wish to call them. The proper financing of these undertakings is always the big problem.

Along the same line are the well established and well known health organizations of our large colleges. For a great many years they have efficiently taken care of the health of students, and their means of support has been a combination of a capital expenditure on the part of the institution for buildings and equipment and a yearly levy of \$5 or so taken from the tuition. By such a levy a considerable fund (\$25,000 to \$35,000) in our larger colleges is available for salaries and other running expenses. Of course, in a large body of healthy young people the morbidity is relatively less than among a mixed population, but the annual occurrence of minor epidemics may partly balance this otherwise lessened morbidity. The fact remains that the whole success

of the plan depends upon coöperation. The well take care of the sick by pooling their subscriptions. The sick always receive many time over their money's worth and the well do not feel the burden. On the contrary they feel a just pride in helping support at so little personal sacrifice an organization that ministers to the health of the community in which they live, fulfilling as it does the functions of a department of preventive medicine, a hospital, and an outpatient clinic.

Why should not this type of organization be duplicated many time over outside of educational institutions? Any community not provided with adequate facilities that could enroll one-thousand members in a coöperative undertaking of this kind could go a long way toward getting up-to-date medical service for all at a low figure, and it would furnish a great encouragement to any young men contemplating general work outside a large city. For that matter, there might well be more than one or several such organizations in healthy competition in our larger cities.

The insurance companies are enlarging their field continually, trying hard not to tread on the toes of the medical profession but secretly knowing ways in which some such schemes as the above would better conditions for their policy holders and the general public.

The whole scheme of educational propaganda of the insurance companies and other organizations urging annual physical examinations will never "carry through" until the defects and incipient ailments which their examinations uncover are taken care of by the company's experts. The whole weakness of all these organizations is that no provision is made for the treatment. The general recommendation—"Go to your family physician"—is merely side-stepping a responsibility in an effort to keep the good will of the general practitioner. At times even now the practitioner is somewhat jealous because of this predatory invasion of his territory, often making light of the diagnosis; and as a consequence nothing is done. At other times he is not even consulted, the examinee preferring to take a chance. Then again the general practitioner may welcome the examination and try to get the patient to undergo the necessary treatment.

In a coöperative health organization the same men who make the examination carry the work forward to a logical conclusion and treat the patient. There is no loss of continuity in the service.

The complete service of such an organ-



ization if outlined would consist of 3 branches—

(1) Public Health Service, divided into education service, preventive medicine, school and preschool hygiene work and immunization, the collection of vital statistics through health surveys, and well kept records.

(2) Individual health service, annual examination, treatment of disease in out-patient clinic and in the home.

(3) Hospital Services, Obstetrics, Surgery, Medicine, and minor specialties.

The size of the organization would depend solely on the size of the community and the number of subscribers.

The ideal would be to give to all subscribers the same service, but no doubt for practical reasons there would have to be a graded service, some taking the public health service only, some taking private individual service, and some taking all three or any two.

The details as to the actual cost for each service would be calculable on the basis of experience and morbidity statistics. It could be as mathematic as life insurance.

As a concrete example let us take 100 people for the complete service—at \$75 a year giving a total of \$7500, another 300 at \$50 a year giving \$15,000, and 500 at \$25 a year giving \$12,500; a total budget of \$35,000 and 900 subscribers. In order to make the concern more successful the subscribers could be nearly doubled, as the same staff could take care of 1800 patients as easily as they could take care of 900. Three physicians could do the work, and at \$8000 apiece there would be \$11,000 for running expenses for the educational work, the clinic building, laboratory and supplies, and clinical help.

The hospital could be a community co-operative affair or a privately given memorial. If given outright with a sum to help in maintenance the scheme would be better started and better continued.

This scheme would maintain practically all of the advantages of general practice, would give to all (country and city) cheap and progressive forward looking medicine and would ensure the upholding of medical standards. It would, in addition, furnish a training ground for future practitioners in the form of assistantships which would be unrivalled in the country. Instead of furnishing the one-sided training in a hospital (the only kind now available) it would combine the old apprentice method with the modern hospital method and train the future practitioner in the hospital, in the clinic, in the school and in the home.

This would be by no means the least important service to humanity.

The details of the management of an organization of this kind with the specific items of service rendered could be made as comprehensive as one pleased or could be somewhat restricted. Educational work might include lectures, bulletins, work incorporated in the school curricula such as studies in heredity, transmission of disease, physiology, cancer, goiter, tuberculosis, etc.; preventive work in goiter, vaccination for small-pox; diphtheria, typhoid, whooping cough and scarlet fever susceptibility; nose, throat and mouth hygiene.

Individual health work would include the annual physical examination with advice as to the correction of any trouble and the carrying through of the program of correction; visits to the clinic for minor ailments and visits to the house for more serious ones. The number of these visits would have to be limited perhaps or determined by the type of service subscribed for. Persons in the community who upon application for membership were found to have chronic disease could not come in under the same terms, which would be determined upon for those who passed the first examination. Those coming down with chronic disease would get all the benefit of constant supervision. Persons who wanted to enter just in order to get service for some known condition like pregnancy, hernia operation, etc., would soon wreck the organization. Memberships could be taken out perhaps only for 2 or 3 year periods with a refund if for any reason families removed from the town or memberships could be taken out at graduated rates for those already afflicted.

People taken sick in other towns could receive treatment in those towns by reciprocal agreement or could draw a cash dividend to help take care of them. This might create a different type of service at a somewhat advanced rate. The whole basis of fees would be determined by an actuarial bureau. At first the fees would have to be sufficient to cover all contingencies, later dividends could be declared or the rates reduced for subsequent years.

Hospital service would include the services of the physician but hospital charges would be extra until such a time as the funds developed to a point where they would take care of it unless the original endowment was sufficient.

If a foundation fund could start a thing like this going and then gradually drop out, the idea would, I believe, take hold as a

permanent form of medical service exactly comparable to life insurance.

If the insurance companies could enlarge their field to include this in districts now poorly supplied or not supplied with medical aid the experiment would, I am sure, be worth more than its cost.

This may be Utopian but I see no reason why a community could not organize on these lines. A town of 10,000 or so would have to convince only 1000 to adopt it. The experience of college men and women might help put the idea across in the community outside or beyond the University.

The faculty in many institutions have reaped the value of such an organization even more than the students and I am sure would feel like doing more to get better and more comprehensive service.

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## Medical Ethics

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### THE RULING DRIVE "The Human Spirit"

John Hammond Bradshaw, M.D., F.A.C.S.,  
Orange, New Jersey

In the last article, an attempt was made to show that the human animal is driven by his instinctive urges. These it must have, else it would not survive. It is a simple matter to define an animal. But who can define a spirit? There are few so materialistic that they deny that there is something in us higher than the animal. Terminology is of little real consequence here. It matters not what *word* we use. The human spirit, if we so term it for lack of a better word, is a complex of drives, urges, aspirations and exaltations but is unfortunately subject to the environment and depressions of its animal habitation. The drives of the animal are material and have material limitations; and can injure the spirit. The drives of the spirit are illimitable; and they can wreck the body. The boundaries are so large that we often use the words, "sky high", implying that which is boundless.

It is a mistake to get the habit of despising and degrading all animal drives or urges, as they are absolutely essential to existence. It is likewise a mistake to unwisely exalt all the urges of the spirit, for if we do this, we place the body itself in jeopardy. Control of the spirit is as essential as of the urges of the body, otherwise we sink into a morass of emotionalism and hallucination. The brain and nerves should not be mere spectators of the drama. We are given these appendages for use. They indeed act

as our *spirit levels*, affording a physical and spiritual equilibrium.

The whole subject is abstruse in the extreme. There are many facets. There is even a chemical side. We have no doubt that adrenalin, for instance, the chemical agent of the adrenal glands, has a controlling effect on the emotions of fear and anger. But are the glands the servants of the brain or its masters?

As has been said by one who was wiser than his generation, "Man is what he *is*, not what he *has*". We all believe the outer envelop is the form and not the substance. It is interesting to speculate, believing as we must in evolution: At what time did the spirit appear? Do the higher animals have a spirit? If not, why not? Why should man be so singled out of all created things coming from a *common origin*? Are the lower animals still in that process of evolution which, say in millions of centuries to come, may likewise endow them with this highest attribute of creation? Does the usual theological answer satisfy? Until we know the origin and the genesis of the spirit of man or begin to comprehend what it is, we cannot answer these questions. Is not one human opinion just as valid as that of another? Both are mundane. Can a Spanish Inquisition compel belief?

We well know that the body can be put in chains, but no iron was ever forged that can chain a spirit. It is this unconquerable, undying nature of the spirit that makes its drives or its urges so remarkable, so unique in its influences in joy and sorrow, in sickness and in health, and in all its power for good or ill. It must be indeed a subtle drug the physician provides when the spirit is ill. He is wise to remember this for it is death alone that divorces the human animal from the human spirit.

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## Esthetics

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### THE RADIO FOR RECREATION, ENTERTAINMENT AND INSTRUCTION

W. Blair Stewart, M.D.,  
Atlantic City, N. J.

You have worked hard and long hours with no recreation or diversion; a slave to the most noble profession ever known. The pleasure of doing good service for others has given you a reward beyond the power of words to express. Vacations, yes, probably 2 each year, that to you are lifesavers, but how do you relax between hours of



work? Read the daily news murder and crime porridge, smoke a good cigar, then back to work?

Probably you have overlooked or have not considered one of our latest recreational and instructive measures at the command of all, the radio. Possibly it may seem very commonplace and *passé*, or your instrument may be obsessed with that demoniacal "static" that always "squeels and squawks" away its real pleasure. No, this is not a salesmanship radio letter, but one to encourage a short period of relaxation for the busy doctor. Radio, at its best, requires a good instrument, not necessarily the highest priced, that will, if properly managed and adjusted, give your clear reception with a decided minimum or absence of static.

Have you read the programs printed daily in your favorite newspaper to see what free information, instruction and entertainment is offered, or do you pass over this page as of no interest to you or your family? If you are a football or baseball enthusiast you can often follow the game play by play, or have given to you the latest scores and news items of the day during or immediately after your dinner hour. Too busy to read your papers? Maybe so, but surely you can give 10 minutes to this resumé of news items of the world and you have important market reports and weather forecast, usually followed by corrected time for your favorite watch or clocks.

Travel, scientific, literary and musical talks are frequent. Operas, light and heavy; musical stars; orchestral music and that popular but frequently condemned "jazz". Book and literary reviews, church services of all denominations, vaudeville, children's hour, and gems too numerous to mention. These items comprise your free daily or weekly program.

Now, doctor, allow me to suggest that, when you grow restless at your desk, or when you have a lull in your office work, go to your radio and tune in on some of the popular stations, listen in for a brief period to the things that interest you, and you will resume your work refreshed and with renewed interest. To me this affords one of my most pleasant means of relaxation, and it refreshes and braces against that nervous tension and tire that comes to all of us.

Have you stopped to consider what a great field of public preventive medical instruction has been opened by radio? If you believe that preventive medicine has its place in the eyes of the public, given by

proper radio talks instead of by advertising quacks in the newspapers and magazines, you must aid our medical societies in giving these properly censored short talks and we must each do our individual part as best we can.

Radio is no longer a play-toy but has taken its place among the commercial necessities of the world. Surgeons and physicians have given radio advice to ships at sea and to remote villages, and have saved many lives by so doing. Please remember, too, that our shut-in patients are solaced, helped and cheered by radio and we must include it among the many remedial agents at our command. Too often, in our busy rush, we neglect this phase of our treatment in selected cases.

If this letter has seemed prosy and stereotyped, it has fallen short, but it will serve its only object, which is to call your attention to a simple means for your own recreation and the help of your patients.

## Lay Mirror Reflections

### HARD HEARTED INTERNS

(A letter in the New York Times, July 26, 1927)

Calloused, hard-hearted, unsympathetic, mechanical—how often we interns have these words insinuated if not actually hurled at us as others watch us in our work. They see us in constant contact with suffering and pain, yet smiling and joking all the while; they see us standing by the side of a dying man, only to be laughing with some other patient three minutes later; they see us accept the return of the ambulance with its load of badly injured bodies with apparent indifference; they see us trying to learn about disease at the autopsy table without seeming to regard the bodies of the dead as something sacred. They see and cannot understand our attitude; they label us as absolutely heartless—they say "As hard-hearted as an intern."

I would that the critics, these friends of ours, could have been at Bellevue today, although again they would probably have not understood. The smile was gone from many faces, the bantering and joking in the dining-room had ceased, men talked in lower tones, men understood and conversed in a different way—and why? Something had happened; one of our number lay dying. Early in the morning the call had come for the ambulance, and young Ogburn had answered the call. The fast-moving ambulance, a car from a cross street, a screeching of brakes, a crash—and Ogburn was brought back to the hospital in a dying condition. Ogburn with his ready smile, his Southern drawl, his friendly ways, his sunny disposition. Word quickly spread, and as we told each other about his condition in technical terms we knew all too well that it was but a question of hours. His breathing became more labored; early this afternoon his breathing ceased, and

Ogburn had gone, as we had seen so many others go.

Calloused, hard-hearted, heartless, they call us—and yet there is little laughing and joking in Bellevue tonight. The very nature of our work makes us hide our feelings, makes us try to forget the sorrow and suffering, or else we would be burdened with an unbearable load. But tonight we are not trying to forget, we do not and cannot hide our feelings. One of our own number has passed on, and our hearts are sad.

A Fellow Intern.

## HOW TO SELECT A DOCTOR

(From the Newark Evening News, Oct. 22, 1927)

At the request of the Gorgas Memorial Institute of Chicago, of which he is a member, Dr. Edward J. Ill of this city, the noted surgeon, has written a short opinion on how to choose your personal physician, which contains sound advice. It is as follows:

No one is so capable of judging a physician as one of his colleagues. The public has no means of checking his accomplishments, his honesty, and his knowledge.

The doctor selected for the family should have its best interest at heart. Once he has been in the family for a length of time, give him your full confidence. Speak to him of your sorrows and pleasures. This helps him to judge of your mental quality, your character and physical make-up.

But whom shall we select? Do not call the untidy and unwashed man, nor the doctor whose appearance reminds one of the fashion bazaar. Avoid the advertising doctor. Remember that smoking is no disgrace, but the careful and tidy man will not reek with stale smoke as he bends over his patients.

The doctor whose breath is filled with the odor of whisky is not the man for the bedside. Nor is the loud and boisterous one. Neither is the timid and uncertain man. The real good doctor is always a gentleman and a man of cheer. The man who bolsters up his own case by talking disrespectfully of other doctors is not to be selected.

Judge the doctor's cheerfulness. Avoid the clown as well as the one who never smiles. The family doctor is always on the job; therefore, do not annoy him at untimely hours nor with trivialities. Trust him and seek his advice in all your illnesses. If he wishes further advice, he will freely suggest such as he knows is most capable. Your interest is his interest.

To merit full confidence, the doctor must be a student. He should subscribe to a reasonable number of medical periodicals and read them to keep abreast of the advances in his profession. He should belong to the local medical society and attend its scientific meetings.

Do not go to a specialist except with your family doctor's advice and consent. The man who knows something of your whole body and he whose duty it is to look after a particular part must necessarily combine to understand all.

If your doctor is a self-respecting man, he will see that his bill is sent regularly. If his fees are too high for your purse, tell him beforehand. The amount of the fee is by no means a criterion of his ability. When his bill comes pay him promptly, accompanying your check with a little note of appreciation. He would not be human if he did not value such a note.

## Observations from the Lighthouse

(The use of coffee is so nearly universal in this country, and the discussion of its virtues and its evil qualities so general a topic of conversation, that we feel confident the following discourse upon its physiologic and medicinal properties will be of interest to our readers. The article is reprinted from an Indian Medical Journal—The Antiseptic—of May, 1927, published in Madras, and was written by G. Raghunatha Rao, M. D., of Calcutta.)

### Coffee

#### Pharmacology and Therapeutics

##### Coffee as a Sedative

It has been proved by experiments that under the influence of coffee, the amount of blood circulating in the brain is reduced but that it is brought to the nerve tissues under increased pressure; and hence assimilation of nutritive material should be increased in rapidity—if lessened in quantity. Prolonged mental labor produces cerebral congestion and drowsiness, and it is this that is corrected by coffee—by contracting the blood vessels, and lessening the amount of blood in the brain. Hence it acts as a sedative to the brain.

##### Effect on Digestion

Coffee like other stimulants quickens gastric digestion, stimulates the secretion of bile, and, by augmenting the peristaltic action of the intestines, promotes defecation; but if it is taken in excess, it paralyzes the digestive function and causes venous congestion of the liver, constipation and hemorrhoids. Here, I may sound a note of warning to my South Indian brethren, as I think that constipation which is a marked feature in the majority of them, may be due to their over-indulgence in coffee. There is no gainsaying the fact that when stimulants are over-used, the natural "tone" must be destroyed and applying this fact, the conclusion is irresistible that the continued stimulation of the bowels by excess of coffee must inevitably lead to a breakdown and ultimate loss of the natural tone of the bowels. This conclusion is further strengthened by the fact that the majority of such cases of constipation are found to be of the "atonic variety."

##### Coffee as a Stimulant

It is said to be a stimulant and has been used for this effect in asthma and narcotic poisoning. Its dietary property as a stimulant to the nervous and vascular systems is that upon which its claims to medicinal recognition depend. It produces a feeling of buoyancy and exhilaration, resembling the first effects of alcohol but it is not followed by subsequent depression and collapse like other stimulants. It increases the frequency of the pulse and stimulates the system to throw off "feeling of fatigue," and to sustain prolonged and severe muscular exertion. The well-established property of coffee in preserving wakefulness depends upon its stimulating property on the nervous system. When swallowed, it produces a warming cordial impression on the stomach, quickly followed by a diffused agreeable nervous excitement, which extends to the cerebral functions, giving rise to an increased vigor of the imaginative sense and



intent *without any subsequent stupor*, such as follows after the use of most other stimulants. Moleschott found that it influences the imagination less than the reasoning powers.

Its extensive use in dietary has doubtless prevented its taking a more pronounced position as a drug. There seems no doubt but that it might with advantage be prescribed in nervous affections, especially where symptoms of deficient energy of the brain or exhaustion, are manifested—without any excessive congestion or inflammation such as are caused by specific infection. In light nervous headaches not due to gastric disorders, it often proves immediately effective. Somehow coffee has acquired a very good reputation as a palliative remedy in the paroxysms of asthma, and has also been recommended as a readily available domestic remedy in whooping cough and hysterical affections.

Further, coffee is comparatively much less astringent than tea; and hence it does not tend to cause constipation so readily as tea. Dr. Dewee recommended it highly in cases of cholera infantum, obstinate chronic diarrheas and asthma.

Wood rightly observes that in those who are habituated to coffee—its characteristic medicinal effects are not fully evinced as it has lost its powers in a great measure by repetition, or its secondary effects are so mingled with the primary effects that the latter are not readily distinguished.

Tea differs from coffee in its effects, mainly in degree. It is less stimulant to the nervous system, less apt to oppress the stomach, but more astringent than coffee in consequence of the amount of tannic acid it contains. Tea is supposed to be quite as efficient as a tonic to the digestive organs. It seems certain that tea, especially the black variety, may be taken habitually with impunity by persons who cannot take coffee without much suffering and that it sits on the stomach more lightly. In febrile diseases, a cup of tea is not only often tolerated, but felt to be agreeable and refreshing. Whereas, coffee, however much it may be relished in health, is usually repulsive to the patient in a febrile state, nor is it well tolerated by the patient's stomach. It is highly praised as almost a specific in the early stages of typhoid by Dr. Guilleme.

### Coffee as a Diuretic

The great use of coffee in France is supposed to have abated the prevalence of gravel in that country. In the French colonies, where coffee is more used than tea and in Turkey where coffee is the principal beverage, not only gravel but also gout is said to be very rare. One thing can be assured of coffee that it is a diuretic undoubtedly, no matter what effect it has on gravel or gout.

Coffee and caffeine have been from time immemorial used as diuretics in dropsy. Dr. Schroeder, of Strasburg, from his experiments concludes that caffeine acts powerfully and energetically upon the secretory apparatus of the kidneys by direct stimulation; but that it may also so affect the vasomotor centers as to diminish the secretion. This apparently paradoxical statement he wished to put to the test. He paralyzed the vasomotor centers in his experimental animals, by the administration of choral hydrate, just to eliminate the influence of the vasomotor centers on the secretory mechan-

isms of the kidneys. The result was a marked lowering of the blood pressure.

A rabbit of 2 kilos weight was narcotized with chloral and cannulas were introduced into the ureters. Within 70 minutes, 50 cgm. of caffeine was injected by separate operations into the veins. The quantity of urine secreted during this time was found to be about 11 times greater than normal. Here the caffeine appeared to have acted directly upon the renal epithelium. To demonstrate this more conclusively, Schroeder cut the nerves of one kidney, leaving those of the other intact. All vasomotor influences were thus paralyzed, so far as one kidney was concerned; while, to preserve those influences over the other kidney the animal was narcotized with morphia before the experiment. When caffeine was then introduced into the blood of the rabbit, there was a much greater urinary secretion from the kidney the nerves of which had been divided. Thus it was clear that caffeine acted directly on the renal epithelium, without the slightest help from the vasomotor apparatus. It seems that the diuretic action of caffeine had been misunderstood, before Schroeder's experiments, owing to the double influence which it exerts, viz, (1) excitation of the nerve centers like strychnin; and (2) direct stimulation of the secretory elements of the kidney, the latter being often completely neutralized by the former. Schroeder compares this double action of caffeine to that of pilocarpin. Small quantities of these alkaloids are sufficient to cause a specific secretion. He also concludes that the action of caffeine demonstrates clearly the glandular nature of the kidneys and also shows that the kidney is *not a simple filter*, as was supposed by some of the older physiologists.

### Renal Toleration of Caffein

Gourewitsch found large quantities of the drug in the central nervous system and the skeletal muscles of caffeine tolerant rabbits, 2 days after ceasing the caffeine injections; and hence he concluded that the tissue cells upon which the drug exerted its action became less susceptible to that action of the drug by repetition. He suggests the possibility of the occurrence of an increased power of oxidation or demethylation, as tolerance is established, though no information on this point is available in the literature.

The rate of development of renal toleration towards caffeine was studied in rabbits rendered tolerant toward the drug, by determining the minimal effective diuretic doses of the drug, at intervals, during the continuous administration of large daily doses of caffeine. It was found that an approximately maximum degree of toleration was reached in about 4 months. Records of renal response to the action of caffeine in the intolerant and normal control rabbits were also obtained by preliminary narcotization and subsequent cannulization of the ureters. The doses of caffeine whose diuretic action was determined in the narcotized rabbits, were later given to rabbits free from the action of any drug other than caffeine, in order to rule out any possibility of interference from the drugs used to depress the central nervous system in the first series of experiments. Results obtained in the catheterized animals duplicated those obtained by cannulizing the ureters. It is necessary to caution here, that difference of opinion exists in regard to the effects of large doses of caffeine

frequently administered on the tissues of the kidney. Vinci reports the production of pathologic changes in the kidneys of dogs and rabbits, by the administration of caffeine in doses of 40 mgm. per kilo or over. These changes are said to consist of dilated vessels, cloudy swelling; vacuolar degeneration and necrosis of the epithelium and slight degrees of interstitial swellings. These changes may be present even when the urine appears to be normal. These lesions are reported to be transitory, disappearing a few days after discontinuance of the drug.

But Cushny says that caffeine does not injure the kidney, even when it is given in large doses for prolonged periods and it thus differs from most other diuretics and hence it may be administered in renal disorders without risk of aggravating the lesion. The drugs of the caffeine group are said to cause no pathologic alteration in the kidneys, even when they are administered in large doses repeatedly or even in poisonous doses. As an experimental evidence to support the above mentioned conclusion, it is pointed out that the kidneys of the experimental rabbits, removed immediately after death (death caused by injecting air into the vein), were found to be macroscopically normal.

But, it cannot be denied that there is development of a decreased susceptibility to the diuretic action of caffeine in rabbits that have been rendered tolerant to the action of caffeine by administration daily of large doses of the drug. For example, it was found that the renal response of the rabbits, exhibiting a maximal tolerance toward caffeine was as sensitive toward minimal effective diuretic doses of other diuretics, such as Sodi Acetas, as the responses of the control animals. Further, the urine of the caffeine-tolerant rabbits showed no pathologic constituents, either during development of the toleration or during its maintenance after development. Macroscopic and microscopic examination of the kidneys of such tolerant rabbits, revealed no particular pathology ascribable to the action of caffeine. The "evidence" seems to be complete and it is rational to infer that there is development of a diminished response to the diuretic action of caffeine in animals that have been previously rendered tolerant to caffeine by the injection of daily large doses of the drug.

The kidneys are found to be more sensitive to the effects of caffeine, during the fall in "volume output" at the end of diuresis or thereafter, than at any other time. Cushny and Lambie (1921) found that in rabbits caffeine produces a transient increase of 15 to 22.5% in renal blood flow, beginning 1 minute after the injection and lasting for from 4 to 5 minutes, followed by a return to normal or below normal. They also state that caffeine acts directly on the renal epithelium as a mild stimulant. Thus, it is evident that there is a general agreement as to the double action of caffeine, as already stated.

#### Action on Heart

Pilcher found that during the acute fall of blood pressure which follows intravenous injection of caffeine, if the dose was less than 10 mgm. per kilo, the heart volume and amplitude remained unchanged; but if the dose was greater, the diastolic volume increased and the amplitude decreased. Large doses caused a progressive fall of blood pressure, an increase in the rate of diastolic volume and a fall in the amplitude. Soluami and Pilcher have also found that intra-

venous injections of small doses caused a momentary depression of the myocardium and a consequent fall of blood pressure. This was promptly succeeded by a rise of blood pressure due to the subsequent stimulation of the myocardium. Simultaneously there was vasodilatation. As the output of the heart was greatly in excess, i. e. more than what was necessary to compensate for the dilation of the peripheral vessels, the blood pressure naturally rose. With large doses, a permanent fall of blood pressure was noticed owing to cardiac depression and vasomotor paralysis.

Hedborn, on the other hand, found that caffeine increased both the rate and the amplitude of the heart beats. The output from the coronary vessels was found to be increased, sometimes to a large extent, with solutions of different strengths ranging from 1 in 20,000 and upwards. Bock attributed this action of caffeine on the heart rhythm, to an acceleration action on the cardiac ganglia and not to a depressant effect on the vagus endings.

He further opined that the output of the heart per beat was diminished and that vasomotor constriction of central origin would account for any rise of blood pressure in the intact animal by more than neutralizing the reduced cardiac output. Beco and Plumier found that in an excised kidney perfused with defibrinated blood an addition of caffeine caused an increase in the outflow from the renal vein. This was clearly due to vasodilatation. Meyer (16) found that an injection of caffeine intravenously caused an increase in the rate of flow through the coronary vein. He considered this to be due to the increased systemic blood pressure. It is claimed that caffeine does exhibit a vasodilator action on the coronary vessels—probably muscular in origin, and hence it is recommended in angina pectoris, where coronary vasodilatation may be of considerable service. In conclusion it may be said that there is no general agreement as to the actual effects of caffeine on the rate, rhythm and the amplitude of the heartbeats, and on the output per beat or total output. There seems to be some doubt as to the effects of caffeine on blood pressure as different observers have stated different opinions. In such circumstances, it is very difficult to form an opinion, and it is prudent to conclude that caffeine is a cardiac stimulant, though it is not known how it actually acts. Further work along these lines is needed to elucidate the mechanism of action, with any certainty.

#### Coffee as a Deodorant

Roasted coffee is said to have the property of destroying offensive and noxious effluvia from decomposing animal and vegetable matter and therefore to be capable of beneficial application as a disinfecting and deodorizing agent. P. Kinsley states:—"The powder of roasted coffee burnt in the wards of a hospital, early in the morning, is a deodorizer and a very fragrant one too." But it is too costly a commodity for such use. When consumed in large quantities, it is supposed by the Arabs to act as an aphrodisiac.

#### Coffee as an Antiseptic

The experiments of Linderitz upon cultivations of various bacteria show that the tincture of coffee possesses marked antiseptic properties. These properties cannot be due to caffeine, which has little effect as a germicide; the tannin may



exert some influence but it is probably the products formed during roasting which are the most active agents. It is remarkable that a cup of coffee may be exposed to the air in a room for a week or two without the appearance of any micro-organisms in it.

### Toxic Effects of Coffee

To illustrate the toxic effects of coffee, Routh in his experiments found out that 50 minutes after taking a dram of the citrate of caffeine, a burning sensation in the throat was complained of and later on giddiness with vomiting and purging and abdominal pain. General paresis with tremor ensued, followed by collapse; but the mind remained clear. Fort took an infusion of 80 oz. of coffee in a quart of water in the course of a day. The pulse rose to 114 and sleep was impossible. Muscular spasms occurred all over the body and were very painful in the extremities, chest and throat. The tongue was dry, there was nausea with frequent liquid stools and the pulse ranged from 110 to 114 and intermittent. Next day, there was headache and anorexia. It is certain that coffee does exert its toxic effects, when taken in large doses.

## Communications

(A letter from the "Nestor" of New Jersey Surgeons, to serve as an introduction for an address on Hospital Work, by Dr. James Spencer Brown.)

The writer of this had the pleasure of being present at the presentation of a fine portrait of Dr. James Spencer Brown to the Mountain-side Hospital of Montclair. He was much impressed by the very enthusiastic reception given to Dr. Brown by an appreciative audience. Interesting addresses were made by Drs. Halsey, Areson and Love.

The writer was particularly impressed, however, by Dr. Brown's address. There was so much good advice, honest opinion and unreserved courage in the address, that it should be made the common property of a larger circle of the profession.

The writer wishes to comment particularly on Dr. Brown's courageous and timely suggestion. At the writer's request, Dr. Brown was kind enough to put his address at the disposal of the Journal of our State Society.

Edward J. Ill.

### Hospital Staff Work

James Spencer Brown, M. D.,  
Montclair, N. J.

Mr. Chairman, Members of the Board of Governors, The Medical and Surgical Staff of this Hospital, Ladies and Gentlemen:

You have said some very nice things about me and whether I deserve them or not I wish to thank you. I especially wish to thank the Staff of the Hospital for the high honor they have conferred upon me by presentation of this portrait, and to express to the Board of Governors my appreciation of their coöperation during these many years, and to the nurses whose loyalty and self-sacrifice have made my success and the success of this hospital possible.

It has been a wonderful age in which to have

lived. To have arrived as a young man at a time when modern surgery was in its infancy and to have had a share in its development; to have been permitted to play a small part in working out the many problems that have placed surgery in a high position among the sciences; to have had the friendship and encouragement of men like Howard Kelly, John Murphy, George Crile, Charles McBurney and a host of others and to have had the support of my Mountainside associates. All this could not have entered into my life had it not been for this hospital. From its first inception I had a vision and I will always have a desire to see this hospital unique as a scientific institution for the care of the sick. The many hours I have spent in the hospital or on hospital work have been hours of real happiness.

So much for the personal side. Men die and are forgotten, but institutions such as this live on, and what I want to bring to your attention tonight is some of the problems that are on the lips of all who have the future of hospitals at heart.

Hospitals were originally built to care for the indigent poor, but it was not long before people of means recognized that these poor people were receiving better care than they because of hospitalization, and the result is that the modern hospital is arranged to care for several classes of private patients. Everyone recognizes that the rich are well cared for because they can employ as many private nurses and other accessories as are necessary. The poor in the wards are well cared for as the nursing is ample, but it is the so-called "middle class" that at present suffer.

Take the young man on a salary of from \$5,000 to \$8,000 a year. Some morning he wakes up to find that his wife or some other member of his family needs the care of a hospital to defeat disaster. He sends the patient to the hospital. Being far from poor, and gentle born, he feels that he cannot put the patient in the ward. He is given a room that costs between \$6 and \$8 a day. Two graduate nurses are essential to the case, cost \$7 a day each and the hospital charges another \$2 for the nurses' board. He has x-ray or laboratory fees, and a charge for the operating room, making board and care in the hospital in the neighborhood of \$30 a day. Supposing stay in the hospital is 21 days; then, because of misfortune his stipend is nearly \$700.

As these patients, whom I have termed "the middle class," constitute more than 75% of the pay cases, you can readily see that an unusual financial pressure is brought to bear upon them.

If you were a stranger, you would say why do not such cases receive the nursing care of the undergraduate nurses? Unfortunately the hospital cannot provide a sufficient number of undergraduates for its private rooms and if a patient is dependent upon this nursing he is out of luck.

The answer is—a larger training school, more clinical teaching, less didactic lectures, placing the senior nurses on private cases, a larger demand for support from the town and a diminished effort to make the middle class bear a burden far in excess of its ability to pay.

One must remember that in this middle class are the young people who in time will be the bulwarks of the business world, but who at the present time have a limited earning capacity. If *altruism* and *humanity* are written over the

doors of hospitals, this class of patients at present are unable to read it.

Another matter that is receiving a great amount of thought throughout the country, is the way to diminish or prevent unnecessary and sometimes very poor surgery, in the private rooms, by the occasional operator.

I believe that it will not be long before all hospitals will insist that private cases shall, before operation, be seen by the Director of Surgery or some surgeon appointed by him, without charge to the patient, to determine whether the operation is justifiable and whether the operator is competent. This may seem like a radical move but the eyes of the surgical world are now focused upon one hospital where a real improvement in hospital management has been in force for something over a year.

The Brooklyn Hospital recognized that if any hospital was to be carried on with the highest efficiency, then every man on its staff must do his full share of its work and by study and personal improvement keep his department upon an advanced and scientific basis. In order to carry out this important part of their work they have reorganized their staff in the following way: They have appointed 2 Chiefs of Staff—Medical and Surgical. They have made these men solely responsible for the work in the hospital. These men recommend to the Board of Governors the men who may become members of the staff of the hospital. Election is not for any specified time, and they hold their position only as long as their work is satisfactory and they make personal scientific advance in their profession. This they consider will keep the standard of work in the hospital high and will enable the doing away with men on the staff who at the time of election seemed to be efficient but who, due either to sickness, hard work, or diversions not connected with medicine have fallen down in their usefulness as members of the staff; but whose removal under the older method was impossible.

Second, they have recognized that hospitals should set the standard of medicine in the communities they serve and should add to the literature of medicine and surgery; therefore, they have taken over a well-known medical publication on clinical surgery and they require each member of the staff to do his full share of literary work. To facilitate this work they have appointed a secretary and stenographers. They have inaugurated the examination of all private cases sent to the hospital for operation by anyone below the first assistant to the Department of Surgery. This examination is made by the Chief of Staff or a surgeon appointed by him, without expense to the patient. They are now considering erection of an office building where all members of the staff will have offices for their private work. This they consider will do away with the lost motion of the staff in going from one office to another and will bring support to its laboratory and x-ray department, as well as cultivate a spirit of friendliness between all members of the staff.

I have been told by Dr. Sherwood, Chief of the Surgical Staff, and members of the Board of Governors that this experiment which has been in force for about a year has improved the scientific work of the hospital fully 20% and they are all delighted with the result.

If this method of staff appointment and control is found satisfactory and becomes general,

I can hear plaintive cries from the men who depend upon medical politics more than upon their work to hold their positions on hospital staffs.

I can see nothing but improvement to both men and hospitals in their service to the public by the adoption of such a plan.

If a man is honest, well prepared, a student and willing to work, he has nothing to fear.

### EARLY DIAGNOSIS CAMPAIGN

(In a letter from Mr. Ernest D. Easton, Executive Secretary of the New Jersey Tuberculosis League, we are requested to publish this notice of an "Early Diagnosis Campaign.")

Plans are being made for a nation-wide campaign to find incipient cases of tuberculosis in March, 1928.

This campaign is headed by the National Tuberculosis Association and sponsored in New Jersey by the N. J. Tuberculosis League, 21 Walnut Street, Newark, N. J.

The purpose of the campaign is to create a desire in the minds of the laity for a medical examination, especially if they have certain symptoms that might awaken suspicion.

Through the national and state offices, the following supplies will be distributed free of charge: 2,000,000 4-page circulars, "Let Your Doctor Decide"; 200,000 posters, "You May Have Tuberculosis"; 10,000 24-sheet billboard posters; 100 motion picture films.

Plans are being made to reach as many people as possible in New Jersey by means of lectures, motion pictures and the distribution of literature. The medical profession will be asked to coöperate in making this movement a success.

## In Lighter Vein

### Ole's Testimony

Ole Olson, trackwalker, was testifying after a headon collision. "You say," thundered the attorney, "at ten that night you were walking up toward Seven-Mile crossing and saw No. 8 coming down the track at sixty miles an hour?"

"Yah," said Ole.

"And when you looked behind you you saw No. 5 coming up the track at sixty miles an hour?"

"Yah," said Ole.

"Well, what did you do then?"

"Aye got off track."

"Well, but then what did you do?"

"Well, Aye said to myself, 'Dis bane hell of a way to run a railroad.'"—Illinois Med. Jour.

### Voice of Authority

A little girl was put in an upper berth of a Pullman sleeping-car for the first time. She kept crying till her mother told her not to be afraid, because God would watch over her. "Mother, you there?" she cried. "Yes." "Father, you there?" "Yes." A fellow passenger lost all patience at this point and shouted: "We're all here! Your father and mother and brothers and sisters and aunts and uncles and cousins. All here; now go to sleep." There was a pause; then, very softly: "Mamma!" "Well?" "Was that God?" —Tit-Bits.



## Current Events

### TRISTATE MEDICAL CONFERENCE

The seventh conference of the officers of the New York, Pennsylvania and New Jersey Medical Societies was held at the Seaside Hotel, Atlantic City, Saturday, October 22, 1927, being called to order by Dr. Walt P. Conaway, President of the Medical Society of New Jersey.

Those in attendance, representing the respective state societies, were: New York: James E. Sadlier, President; Joseph S. Lawrence, Executive Secretary; Frank Overton, Executive Editor.

Pennsylvania: Arthur C. Morgan, President; William T. Sharpless, Chairman Board of Trustees; Frank S. Hammond, Editor.

New Jersey: Walt P. Conaway, President; Ephraim R. Mulford, Vice-President; J. Bennett Morrison, Secretary; Henry O. Reik, Editor.

Following the introductory welcoming remarks, the presiding officer, Dr. Conaway, announced that the special subject for consideration at this meeting would be "State Control of Private Hospitals", and that this topic would be presented by Dr. Morrison.

#### State Control of Private Hospitals

J. Bennett Morrison, M. D.

Newark, N. J.

The subject of some form of proper supervision and control of the small private hospitals in our own state has been uppermost in my mind for a considerable length of time. My position, as Recording Secretary of our State Medical Society, brings to me complaints from many sections of the state regarding this type of institution. These complaints and inquiries cover many aspects of the so-called private hospital, such as: personnel of the staff; character of work performed; the death rate; legality of some forms of treatment; character of the building and equipment; the sanitary conditions and the fire hazards.

For many years the care of the individual as he is affected through the avenues of immigration, transportation and navigation; the supervision of food handlers, food carriers and packers; the inspection and control of potable waters and sewage; the control of contagious diseases and other public health dangers have been placed under state or municipal control. Provisions have been adopted for supervision of the fire hazard and for the sanitary condition of schools, theaters and all public buildings. Institutions and hospitals of the larger size have all been placed under some form of supervision and control. But the smaller hospitals, the so-called private hospitals, those organized by private individuals either for convenience in the care of patients, or for their own profit, are without any kind of proper supervision, inspection or control.

The hospitals of large size, public and semi-public are chartered. Where they are supported by public funds, in whole or in part, or where they are endowed, their books and records are open for some inspection and the degree of publicity thrown around them is a factor in their proper upkeep and in the manner in which such institutions are conducted. All such hospitals, and those of 100 beds or over, and many of a capacity of 50 beds or over, have been inspected and supervised by the American College of Sur-

geons. The improvement in all these institutions since such supervision was instituted has been recorded in our literature on many occasions. The physical quality of the plants, the personnel of the staffs, equipment and other conditions in the hospitals, have been markedly improved. The slogan, "the care and interest of the patient, first, last, and always", has been well put over.

The smaller hospitals where this supervision is not carried out are far from being a credit to our profession. It is for this reason that the New Jersey members of this Tristate Conference decided to bring the matter up today for discussion. Within the ranks of organized medicine there is probably nothing of a controversial nature in connection with this subject. There need be no speculation on the necessity for, or an analysis of, the reasons leading up to its presentation. We are simply presenting a plea for the proper supervision of those institutions in our 3 contiguous states where human lives are taken in the balance; where grave medical and surgical conditions are treated by physicians, some of whom we believe have not the necessary education and experience to properly care for patients. We question whether the equipment in many of these hospitals is adequate. We doubt whether the fire hazard and sanitary conditions in many of these institutions render them safe for occupancy by the sick or disabled. In some of these hospitals, we are led to believe that medical and surgical treatment is administered in ignorance of the very cardinal principles of anatomy, pathology, surgery and asepsis.

In some other types of these so-called hospitals, the freedom and the lack of moral responsibility with which some men operate upon or treat patients are almost beyond belief. The results, if they were known, would be appalling, but being unknown, except to those who suffer, they reflect upon the reputation of the entire medical profession; for the ignorant portion of the public cannot do else than class us all together.

The records in some of these hospitals are accessible only to the county prosecutor, and then only in case of criminal action.

These private hospitals, especially in this era of unprecedented prosperity, are springing up like mushrooms, over night. Those of us who are interested in surgery have seen the incidence of surgical procedure increase almost a thousand fold in the last 15 years. The numerous indications for relief by surgical means, at the hands of those competent to perform surgical operations, and the successful outcome of such treatment, have induced many people to seek promptly this method of relief. And, the general public cannot always make proper selection of a competent, conscientious surgeon. The fact that a doctor conducts a private hospital places him, in public opinion, in the front rank of surgeons.

We find these places running in full force in many localities. Stories of abortions, of incompetent surgery, of unnecessary operations, of operations on what we would call inoperable cases, of morbidity, of women dragging a chain after them all the remainder of their lives because of these procedures, are coming to the attention of almost every prominent man in the profession.

It is high time that the regular profession institute steps to put an end, as far as possible, to these abuses. It seems to us, after a careful study of the matter, that this can only be accomplished by placing all such institutions under

"state control". We anticipate, however, that the argument that such a course will lead to "state medicine" will be immediately raised. This argument will be advanced mainly by those who are afraid to have the light of publicity thrown on their institution and methods. If these places are brought under state supervision and inspection, it will not lead to state medicine any more than has the registration of physicians, or the establishment of state boards of health, or the placing of our public institutions under the state board which in New Jersey we call the Department of Institutions and Agencies.

Considering the remedy as applicable to our own state, we in New Jersey propose that steps be taken to provide that these private hospitals shall be placed legally under the supervision and control of our State Department of Institutions and Agencies. This would immediately give the subject an aspect of state supervision, rather than control by the medical profession. It will at the same time disarm a great deal of criticism and close some of the avenues for unjust and acrimonious debate. Such a step will immediately make it justly appear that the state is instituting this supervision in the interest of the general public.

We wish it to be distinctly understood that we do not propose to limit, in any way, the number or the legitimate scope of private hospitals. In our modern civilization, existence of these institutions is absolutely necessary. We live here in a rapidly growing industrial section of America. The population of the states of New York, Pennsylvania, and New Jersey is increasing rapidly. Almost every section of these 3 states is under-hospitalized. This is true even of the larger cities and towns, and in rural communities the hospital facilities are meager. A recent survey of patients treated in hospitals in America shows that *forty-three per cent* of our people applying to hospitals for treatment are now being cared for in these small hospitals. So, we believe that such institutions are an absolute necessity.

No opposition to such a plan as is here suggested will come from physicians who conduct reputable private institutions for the care and treatment of the sick or disabled. They should rather welcome some such supervision; it will make a distinction for their hospitals and increase their work to capacity; the public will know that the state has given them special recognition. The opposition will come from those men who fear the light of pitiless publicity.

Last year, a bill was passed in our legislature to provide "for the licensing of private nursing homes for the care, treatment and nursing of persons ill with disease or who are crippled, infirm or in any way afflicted". Following is a copy of the Bill, which is far from being satisfactory:

#### CHAPTER 133, LAWS OF 1927

An Act to provide for the licensing of private nursing homes for the care, treatment and nursing of persons ill with disease or who are crippled, infirm or in any way afflicted.

BE IT ENACTED by the Senate and General Assembly of the state of New Jersey:

(1) No private nursing home for the care, treatment, or nursing of persons ill with disease, or who are crippled, infirm or in any way afflicted,

Application to show.

Proviso.

Adequately prepared.

Fire protection and other considerations

License fee.

Renewal fee.

ed, shall operate within this state except upon license first had and obtained for that purpose from the Department of Institutions and Agencies of the state of New Jersey, upon application made therefor which application shall set forth the location of the home, the person in charge thereof, and the facilities for taking care of persons who may seek treatment or care in said home; provided, however, that nothing in this act contained shall be construed to apply to any hospital, home or institution conducted by or for the members of any religious body or denomination or regularly organized fraternal or charitable association, or where such institution maintains a staff of regularly licensed physicians.

(2) No such license shall be granted by said department unless the commissioner thereof shall be satisfied that the institution in question is adequately prepared to furnish the care and service to be provided by it.

(3) In considering the application for a license the said commissioner shall take into consideration whether such home has adequate fire protection and shall further make an investigation as to the character and financial responsibility of the applicant.

(4) Upon the issuance of any license by the Commissioner of Institutions and Agencies, which license shall be valid for a period of one year from date of issue, the applicant at the time of such issuance shall pay to the said commissioner a fee of twenty-five dollars, and upon renewal, an annual fee of twenty-five dollars, which sum shall be used by the said Commissioner of Institutions and Agencies to defray the expenses in connection with the administration of this act.

Approved March 25, 1927.

The following letter from Mr. William J. Ellis, Commissioner of our Department of Institutions and Agencies, who was invited to be with us today, will explain his inability to be present, indicate his connection, as Commissioner, with the enforcement of the Act, and the great desire on the part of the Department to have the Act amended. It will also show you his eagerness to confer with us at some future date in regard to this important matter.

Dear Dr. Reik:

Saturday, October 22, is a day set apart here for commemorating the Twentieth Anniversary of the incumbency of Dr. Cotton and Warden Atchley as executives of the Trenton State Hospital.

This means it will probably be impossible for me to attend the conference which has been scheduled for that morning at your office in Atlantic City. I am indeed sorry I cannot be present, as I would like to renew my acquaintance with you and Dr. Conaway and discuss the important subject which you have scheduled.

I am sending you herewith a copy of the bill which was passed by the Legislature last year.

Private nursing homes licensed.



This bill did not emanate from this department, but was initiated by some people in Essex County, who did not consult us until after the bill had been introduced.

However, we were glad to undertake the supervision required by us in this bill, as we realize the importance of state inspection of these private institutions.

I am also enclosing for your examination a copy of the schedule of questions which we are having our investigators fill out in connection with each investigation before issuing a license.

As a result of our experience in enforcing this law during the present year, we have noted several desirable amendments which we would like to discuss with you and your associates on the Legislative Committee of the Medical Society of New Jersey.

I would be glad indeed to have you hold the next conference of your group at our office in Trenton if you think this could be arranged, and if it does not conflict with your policies. At that time I would be glad to have you consider with us our experience in inspecting private hospitals, and also the result of our study of the increase of mental disease in New Jersey, and such other matters of mutual interest as you might like to include.

If you think it best that this should be discussed before a different group and will suggest those who should be invited and a possible date, I would be very glad to arrange it. I always enjoy meeting you and am sorry I cannot be present at the meeting on October 22.

Yours very truly,

William J. Ellis, Commissioner,  
Department Institutions and Agencies.

This bill was not submitted to our Welfare Committee of the State Medical Society before its introduction into the General Aessmby. Its purpose was to license "private nursing homes". As such, it is an excellent measure and we commend the Department of Institutions for the "Regulations" they have compiled for enforcement of the Act. For the purposes outlined in this argument of mine, the bill does not go far enough. We would seek legislation covering the very institutions excepted in this Act, and we would suggest that no legislation can be effective unless the Act establishing it has some enforcement provision and some penalty for non-observance.

I will read the regulations set up by Commissioner Ellis for the observance of this Act and you will notice how thorough they are.

Nursing Homes

Inspector	Date of Visit
Name of Institution	
Location	
City or town	
County	
(If no street or number, tell how institution is to be reached.)	
Name of owner	
Incorporated as General	Charitable
Purpose	Date
Total Value of Plant	
Fixed Indebtedness	
Source of Maintenance	
Total Capacity	Census on day of inspection
Type of Building	
Cards or folder (photograph of institution if available)	

Rating—Original inspection
License approved—Date
License not approved—Date

Personnel

Chief Executive	Title	
Training		
Experience		
Assistant		
Training		
Experience		
Night Superintendent		
Training		
Experience		
Nurses—No. of R.N.	No. of Graduates	No. of
	No. of Attendants	Students
Other Employees		
No. of Female		
No. of Male		
Total		

Regulations Governing Admission and Discharge

Admission requirements: Age Sex Color Creed  
Is physical examination required?  
Is diagnosis made upon application?  
Are references required?  
What financial arrangements are made on admission?  
What arrangements are made about discharge?

Rates

	Daily or Weekly	No of	No. of
	Minimum	Maximum	Beds
			Bassinettes
Single Room			
Two-bed Room			
Ward			
		Totals	
Admission Fee			
Extras			

Medical Care and Service

Does physician make a daily visit?  
If not who decides when doctors shall be called?  
Are routine laboratory examinations made? If so what?  
Are physicians compensated by salary or by visit?  
Are physicians compensated by institution or patient?  
Are physicians employed full time? Part time?

Nursing Care

Who is responsible for care of patients?  
How many patients under care of each nurse or attendant?  
Who is in charge at night?  
How often is bedding changed?  
How often is personal linen changed?  
What provision for isolation in contagious disease?  
Is medicine closet securely locked?  
Who keeps the keys?  
What safe-guards are placed about the handling of narcotics? Alcohol?

Buildings

Bldg.	Mat.	Dimens.	Stories	Fireproof	Cond.
A.					
B.					
C.					

**Grounds**

Extent of grounds  
 What part under cultivation?  
 Who is in charge?  
 General condition  
 (See next page for sketch of building and grounds.)

**Heating System**

Kind: Steam Hot Air Hot Water  
 Who is in charge?  
 How old is heating system?  
 Is it adequate for severe weather?  
 Location of boiler: furnace:  
 Is basement used for other purposes than storage?  
 If so, what?  
 How is hot water heated?  
 Disposition of ashes  
 Cleanliness

**Lighting**

Electricity Gas Kerosene

**Fire Protection**

Does institution have following:  
 Interior fire alarm?  
 Connection with Fire Department?  
 Red lights over exits leading to fire escapes?

**Inside**

Hose reel  
 Extinguishers location Date last charged  
 Fire buckets location  
 Sand buckets location  
 Character of hose  
 Condition of hose Last tested by  
 Is water pressure adequate?

**Outside**

Hydrants Public Private  
 Water tanks  
 Fire pumps

**Fire Escapes**

Outside Inside Location Character Condition  
 Bldg. A.

**Special dangers**

- (1) Any unprotected woodwork near gas jets, stoves, furnaces and stove pipes?
- (2) Unprotected or swinging gas jets?
- (3) Imperfect gas stove connection?
- (4) Presence of oil or other inflammable material constituting fire hazard?
- (5) Location of furnaces and stoves in reference to stairways and main exits:

**General impression of fire protection**

List of fire under-writers Amount of insurance carried

**Patient's Accommodations****Wards**

Location	Length	Sq. Ft.	Windows	No. of Beds
Floor and Width per bed			Number	
1.			Location	
2.				
3.				

**Rooms****Private**

Space  
 Ventilation

**Semi-private**

Space  
 Ventilation

Remarks as to character and condition of furniture and furnishings and bedding.  
 Are rooms screened?

**Toilets and Bathrooms**

Loca.	No. of Floor baths	No. of basins	No. of toilets	No. of hoppers	Pop. of bldg.
Shower Tub					
Care of bed pans: Sterilized? Disinfected?					
" " urinals;					
Character of floors (wood, tile, composite, cement)					
General impression as to					
Cleanliness					
Ventilation					
Water Supply					
Plumbing					
Odors					

**Kitchen**

Location  
 Dietitian  
 Cook  
 Range: Gas Coal  
 Refrigerator  
 Location  
 Kind  
 Cleanliness  
 Is kitchen well screened? Lighted? Ventilated?

**Food Service**

Who prepares menus?  
 Who orders special diets?  
 Dining rooms: Loca. Screened Lighted Ventilated  
 Nurses'  
 Employees'  
 Patients'  
 Remarks:

**Tray Service**

Where are trays set up? By whom?  
 Equipment Dishes Silver  
 Linen or paper?  
 General impression of quantity, quality and suitability of food served.  
 Is food hot when it reaches patient?

**Sample Menus**

Breakfast: Dinner: Supper:

**Sleeping Accommodations for**

Superintendent	Location	No. of beds	Baths
Doctors		M. F.	
Nurses			
Other Employees			
Remarks:			

**Laundry**

Location  
 Type of Equipment: Steam Electric Hand  
 Are there safeguards around dangerous machinery?  
 Floor material: Wood? Cement? Tile? Comp.?  
 Is floor dry or properly drained?  
 Condition of plumbing  
 " " equipment  
 Who is in charge of laundry?  
 How is clothing dried?  
 How often is laundry done?

**Water Supply**

City Artesian Well Tested?

**Sewage Disposal**

City Sewage Septic tank Cess-pool  
 If cess-pool, how often cleaned out?



Elevators

If not provided, is service needed?  
When last inspected? By whom?  
What kind of elevator in use?

Hospital Facilities

Operating Room	Location	Equipment
Sterilizing room		
Scrub-up room		
Work room		
Anesthetizing room		

X-Ray

Location	Who in charge?
Equipment	
Kind of machines	
Protection of operator and patient	
Care of films	
Records	
X-Ray treatments	

Clinical Laboratory

Location	Who in charge?
Equipment	
Tests made	
Records	

Other Departments

Hydrotherapy  
Physiotherapy  
Delivery room  
Nursery

If no hospital facilities, what arrangements are made for operation, x-ray, laboratory, etc.?

Hygiene and Sanitation

Condition of Floor Coverings	Exceptions
Condition of Wall Coverings	Exceptions
Presence of rats, mice, bedbugs, other vermin?	
Methods used to exterminate same?	
What disposition made of garbage?	
If collected, how often?	
Are covered containers used?	

Other Inspections

Dept. of Health	Date
Recommendations	complied with
Dept. of Labor	Date
Recommendations	complied with
Dept. of Sanitation	Date
Recommendations	complied with
Fire Dept.	Date
Recommendations	complied with

Social and Religious Activities

Is there a library?  
Piano, Radio, Victrola?  
Occupational therapy?  
Is there a sitting room, sun parlor?  
Are religious services held?

References

(1) Character of owner  
A.  
B.  
(2) Financial references  
A.  
B.  
Commendable points:  
Recommendations:  
Rating:  
Remarks—with personal observations as to persons employed, calls on trustees, etc.

Board of Managers, Directors or Trustees

Name	Address	Title
1.		
2.		
3.		
4.		
5.		

How often do they meet? Where?  
What records are kept of transactions?

Medical Services

Attending Physicians:

Name	Address
------	---------

1.  
2.  
3.  
4.

Consulting Physicians:

1.  
2.  
3.

Do physicians hold any meetings? If so, what records are kept?

Population Statistics

No. of patients in house Jan. 1, 1927 (or fiscal year)  
No. of admissions during year  
No. of births including stillborn  
Total admissions  
No. of discharges  
No. of deaths  
Total discharges  
No. remaining Dec. 31, 1927

Records

Are records filed?  
1. Admission card or book  
2. Medical records  
3. Nursing records  
4. Financial records

If this discussion today leads to the adoption of measures looking toward effective legislation, we would suggest that the registration fee shall be high enough to create a fund sufficiently large to set up a department with all the necessary requirements for thorough investigation and inspection, for records must be kept and filed, inspection hired, office assistance installed, and much necessary printed material provided; all this will cost considerable money and the traffic should bear the expense. The fee should, in my opinion, be not less than \$100.

We would propose that, wherever possible, a member of the American College of Surgeons and a member of the American College of Physicians shall be a member of the staff in such hospitals of 25 or more beds. Of course, this could not be done at once but the department should keep this desirability in view all the time, so that the standing of the staffs may be constantly elevated. Consultation with the State Medical Society and the American Medical Association will secure a rating for every physician in the country. Every member of the staff of such hospitals should be a member of the state and county medical societies. There are many instances where this is not so today, and there are also instances where men who have been refused positions on the staffs of incorporated hospitals and have had their request to treat patients in open hospitals declined, have set up these private institutions where they may prey upon the innocent public

without any supervision whatever and without even such check as is afforded by the opinion of the regular profession.

Provision should be made that proper histories and records be kept, similar to those required by the American College of Surgeons of hospitals which they standardize, and that these records be open to inspection at all times. Failure to carry out this regulation should be grounds for instantly closing an institution. The death rate, which in some of these places runs as high as 10%, should be investigated. Investigation should be made of the class of patients subjected to operation; so as to prevent inoperable cases being taken to the operating table solely for a fee. In time, the American College of Surgeons will supervise these hospitals but that will not be possible for many years. It must be done now by some special board of authority in each of the respective states.

It is a well-known fact that many of these hospitals are housed in buildings that are veritable fire traps. The institution of fire escapes, fire extinguishers, and fire sprinkling systems should be made compulsory. Municipal fire commissioners should notify the Department of Institutions when, in their opinion, such buildings are unsafe.

Ample provisions for sufficient ventilation, light, and the proper amount of air-space per bed, should be required and over-crowding prevented. A room should be reserved for the care and treatment of such cases of contagious disease as may arise in emergency.

Every building or portion of a building where more than one patient, who is not a member of the family, is treated for more than a few hours should be designated a "private hospital" or "clinic", and provision should be made in the law for closing such buildings by police measures if they do not comply with the regulations set up by the Department of Institutions.

The law should impose a penalty of not less than \$1000 upon all persons who conduct one of these hospitals or clinics without having taken out a license within a reasonable time after the law becomes effective. Provision should also be made in the law for the imposition and collection of the penalty.

This supervision by legislation is urged in the interest of the general public which, in many instances, suffers at the hands of those who conduct such uninspected and uncontrolled institutions. It is also urged for the protection of reputable surgical and medical treatment in our respective states.

#### Discussion of "State Control of Private Hospitals"

*Dr. J. E. Sadlier*, President of the New York State Medical Society: This seems to me to be a very important subject for discussion this morning, and it is one in which I have endeavored to make something of a study regarding the laws governing it. Dr. Lawrence wrote to the Departments of Health in practically all states of the union, in an endeavor to get for me definite information with reference to the matter of control over private institutions. That effort upon our part showed that there was a very general lack of state control, not only in the 3 states represented here, but all over the United States. The only essential exception is that in quite a percentage of the states, maternity hospitals are controlled by legislation to a considerable extent, irrespective of their size.

Another form of control, applying especially to the maternity institutions, was a rather indirect form, namely, that those institutions which had training schools or were under control of the Regents of the State Board of Education necessarily had a certain amount of inspection from the standpoint of the nursing efficiency in the institution.

My own personal observation with reference to the private hospital is—and in speaking of private hospital I assume that we are all considering the privately owned institution whether run for profit or otherwise, usually small profit though it may be rather large in size—that they may be divided into 3 classes:

(1) A type that is rendering efficient and excellent service to a community wherein it is needed; conducted by a regular physician or surgeon or obstetrician, or whatever the type of work that may be done. It is usually located in a community where there is otherwise inadequate hospital service. I have in mind quite a large number at the present time of such hospitals in our own state, New York. Many times they are the nucleus of the development of a larger public institution which continues to serve that community. I have knowledge of a considerable number of privately established and privately owned institutions which have done splendid constructive work in the development of surgery in their particular locality.

(2) Secondly, we have the type established usually by a rather inferior grade of physician or surgeon, especially by men who desire to become a surgeon without proper preparation, or, at least, to develop some specialty for which they have not given proper time and attention to preparation. Such institutions, in so far as I have known about them, do a very inferior type of work. The quality of this surgical work is a menace, usually, to the people of that community. I recall a remark by that pioneer gynecologist of the state of Pennsylvania who passed into the "Great Beyond" some years ago, Dr. Joseph Price, with reference to the junk surgery developing here and there over the country, that he was seeing many cases that had been improperly treated and then left for reputable surgeons, later, to endeavor to get those patients out of their particular trouble. In this second type of private hospital, we see that kind of work going on.

(3) The third type is that where we have every reason to believe a criminal class of work is being done. The most reprehensible thing that any community, county or state, can have within its borders is that type of nefarious institution.

I assume that the first type I mentioned, namely, the institution that is of value to the community, that is a distinct asset, represents a condition somewhat similar to what in Great Britain is known as the Nursing Home; an old established institution in that country. I think the work is perhaps very well done in those institutions and we know that a large proportion of the better class of people in Great Britain are cared for in those Nursing Homes. And, of the 3 types that I have mentioned, the first type is the only one which should be countenanced by the state, and legislation should in no wise interfere with that type of institution. It has not interfered with legislation. In fact, it would welcome it because it would put it on its proper standing. I cannot help but feel, though, with reference to this whole subject, that the Ameri-



can College of Surgeons with its beneficent influence will in the end be a very great factor. The American College of Surgeons must recognize the formidable condition that exists in the private hospital. If you will recall, in one of their Bulletins during the year of 1925, when they were summarizing the question of inspection and endeavored to put under the minimal standard the hospitals of 50 to 100 beds, they made what to me was an astounding statement: that *forty-seven per cent* of the cases hospitalized in the United States were cared for in hospitals of less than 50 beds. That is, a vast proportion of hospital cases in this country come within the scope of the hospitals of which we are talking this morning.

Now, in that same article in the Bulletin of the American College of Surgeons, they deplored the fact that inadequacy of endowment prohibited their paying any attention to the smaller type of hospital at that time. Unquestionably, I think in due course of time, with the growth of influence and power that the American College of Surgeons has, and especially with an increased endowment, one of the most beneficent things that great organization could do would be to have an inspection of such small institutions, a continuation of their plan with reference to a minimal standard. I think all of us must agree that nothing has improved the quality of the hospitals generally all over the country so much as has the work of the American College of Surgeons.

I feel that the private hospital of the type which I first suggested has nothing whatever to fear. As to the increased number that Dr. Morrison spoke of, I had felt otherwise with reference to our state. As I have traveled over New York State, it has seemed to me that our number was rather decreasing. I cannot see wherein registration will be any hindrance to the type of hospital that is going to do good work, it matters not whether it pays \$100 or \$500, but I can see where that money collected would be of inestimable value to the state in carrying on the work of the commission under which such hospital was registered.

Dr. A. C. Morgan, President Pennsylvania State Medical Society: Dr. Morrison has given us a very practical topic for discussion. Immediately upon receiving an invitation to take part in the discussion, I began to write letters and I have replies from the State Secretary of Health in which he states that there is no law in our state governing private hospitals. In Pennsylvania, we have the habit, whether good or bad, of giving money rather freely to hospitals throughout the state.

The President of the State Board of Medical Education and Licensure advises me as follows: "The hospital physician is protected in his activities only by the license which he holds to practice medicine. If the activities of his hospital reflect upon his license, this may be revoked, and his activities stopped. If the hospital is not incorporated the responsibility rests upon the man who takes charge of it."

The Secretary of Public Welfare, Department of Health, writes: "All hospitals receiving state aid are subject to inspection from practically 3 sources: The Department of Welfare has supervision over their expenditures and determines the amount of money they receive from the state by the number of free hospital days of service; the Board of Medical Education and Licensure

standardizes the hospitals as to whether or not they will be acceptable for internship; and the Board of Examiners for the Registration of Nurses standardizes them in regard to whether or not the graduates of their training schools will be competent to take the examination for registered nurses."

From the Legal Department we have: "Any individual can open a private hospital in this state. It does not need to be incorporated."

So, you see, Pennsylvania is woefully lacking in control of private hospitals.

Discussing Dr. Morrison's paper direct, I approve of his recommendation as to the desirability of registering and licensing all private hospitals. Setting the license fee high is very much approved for 2 reasons: first, because it is a challenge to the men or individuals who want to start a hospital; secondly, it will have very valuable weight when we present any proposed Bill to the Legislature. If we present a Bill requiring an outlay of money, the Legislature looks askance. However, if we propose a bill or law that will be self-sustaining or nearly so, then the Legislature will look at us in a more kindly manner. That is a point of practical politics that must be borne in mind.

As to the provision that the surgeons on the staffs shall be members of the American College of Surgeons, I disapprove of that for the following reason: I have in mind 2 very reputable hospitals in Pennsylvania, one in a town of probably 10,000, the other of 15,000 inhabitants, both of them drawing from large centers of rural districts. The local surgeons, who are competent men, delightful men, honorable in every particular, have not been able to get into the American College of Surgeons or the American College of Physicians. It is alleged that there has been some personal animus on the part of the neighboring surgeons in 2 instances, and I think the allegation is fairly well founded, and that personal petty jealousy has debarred these men from membership in the American College of Surgeons, thereby carrying the so-called stigma, whether it may be much or little, as to a man being a surgeon and not a member of the American College of Surgeons. These instances can be duplicated, I am sure, and repeated many times in our own state.

Again, I feel that the American College of Surgeons would possess too much centralized power that could be at some time wielded for purposes not altogether satisfactory to local communities. I know personally that the Association of American Medical Colleges, in the inspection of medical institutions, have inspectors who travel around with but one thought of academic interest in the institution to be inspected, disregarding entirely and discounting any information that might be supplied to them with regard to peculiar local situations. They measure it by the cold yardstick, the "Prussian idea", of medical education as introduced into the United States in 1904; increasing centralized power and making possible the use of power that may not be to the benefit of the local hospital or institution. Instead of being controlled by the American College of Surgeons, I feel that the medical societies of the respective states can more safely be trusted to be the arbiters of classification of the various institutions that exist or that want to be chartered in a state.

All books and records should be open to examination and inspection by the Secretary of the Department having direct control of hospi-

tal activities. In Pennsylvania, that office would be the Department of Public Welfare. Nearly all of the small private hospitals are a part of a dwelling house, either with the surgeon living in one part, or a remodeled dwelling house that does not lend itself well to hygiene, sanitation, protection from fire, segregation from noises and availability of pure water. That is a point well worth considering.

Provision that the members of the staff shall be members of the state and county medical societies is approved. If personal animus should creep up in regard to any local hospital, a man who is debarred from a county society has the right of appeal through the state society to the American Medical Association. If he presents his case in a satisfactory manner, he can be given membership at large in the American Medical Association. If the charge is not sustained and thereby the members of the local county society are proved to be actuated by unjust motives, then the reflection reacts upon the county society and that organization would appear to be in need of investigation.

I agree with regard to pitiless publicity being one of the main checks upon any institution or organization or individual. I would also have Dr. Morrison include in his discussion "medicine" as well as "surgery". The attitude outside seems to be that when a hospital is organized, or if a hospital is available, it is only for surgical cases. The average in the ordinary hospital is 67% of surgery and 33% of medical cases. The purpose of a hospital is to have a centralized place where sick people, whether surgically or medically ill, can be taken and cared for, and restored in the best and quickest manner to their usual walk and place in the civic community and to their industrial surroundings.

I feel that this discussion today is very important, timely, and that the lesson for us all to draw therefrom is that we should endeavor to influence our own respective legislators in this matter and at the next session of the Legislatures have Bills introduced in each state leading toward the regulation of these hospitals.

*Dr. William T. Sharpless*, Chairman Board of Trustees, Pennsylvania: I practice in a country community where we do not have any private hospitals. We have a few convalescent homes and nurses who take in patients, but there is nothing in our immediate neighborhood that comes under the classification of any of those institutions which Dr. Sadlier has mentioned. The disposition toward group practice promotes the establishment of private hospitals. Where a group of doctors get together they are very apt to establish their own hospital and not send their patients to a large institution.

The question of getting proper legislation is a very serious one and a very difficult one, as we know in Pennsylvania, and with which Dr. Morgan is more familiar than I am, and I think there will have to be a lot of missionary work done before we get much of that sort of thing established in Pennsylvania.

*Dr. Frank C. Hammond*, Pennsylvania: The problem which Dr. Morrison has brought up is, I think, one of the greatest problems that we have to consider. First, you must consider the privately owned hospital from its various aspects: From the standpoint of the physician who maintains a hospital for his own work, medical, surgical and anything that he can take into it. Then, as the hospital owned by the

physician and permitting others to bring patients in; in this case he is supposed to have control as to whom he will allow to operate in this hospital, or to take care of the medical patients or maternity patients. Then we have the hospital that is owned by a corporation; that is, a group will get together and buy stock and start a so-called private hospital which is run primarily from a commercial standpoint and with a view to the largest returns from their investment. A hospital of this type has, as a rule, a superintendent in charge; almost invariably a graduate nurse, who may or may not be interested financially. We also have private hospitals of the type where a physician or a group of physicians may have full control of the stock and of the running of the hospital, and where any one is permitted to bring patients in for the type of work that the hospital considers itself equipped to handle. Certain private hospitals are devoted exclusively to medical work or to maternity cases, and others will take in any type of patient that is received in any general hospital.

So, there are various types of privately owned hospitals that must be considered. I have talked this over with some individuals who are in control of privately owned hospitals and they are thoroughly impressed that they would like to run their institutions on the highest possible ideals, that they would like in some way to have control of those who bring patients to their hospitals, and when they see that a man is incompetent to do a certain line of surgery but is competent to do another, to be able to say to him, "Doctor, you do a better abdominal operation than other surgery. Why don't you stick to abdominal surgery?" Or, "Doctor, your maternity work is not what it should be. You do forceps delivery very badly". The privately owned hospitals where those in charge have high ideals deserve a lot of credit and they should be encouraged. Several of those with whom I have talked find it necessary sometimes to refuse the patients of certain doctors, stating to the doctor that they feel he is not competent to do that particular kind of work and that they do not care to have their hospital subjected to the criticism that has arisen from such incompetent work. Those institutions deserve credit.

The average privately owned hospital, however, does not take that attitude. It is run on a commercial basis; with a desire to fill the rooms and increase the income from year to year. Many of them are very apt to make no attempt at censorship so far as the physicians who are bringing work to their doors are concerned. Those in Pennsylvania who have taken this higher stand would welcome any executive board administration or state control that would regularly inspect their institutions to see that they are being as nearly square to the public as possible.

I have in mind a maternity hospital that is run exclusively as a private maternity hospital, and it is one of the dirtiest, filthiest holes that I have been in for a long time, that sets forth as a hospital. There is no inspection and no one to check them up.

The privately owned hospital fills a niche in the hospital world. There are physicians who are competent to do good surgery, good maternity work, good medical work, competent in their specialty whatever it may be, but who are not connected with a general hospital and have no hospital available for their patients. If certain



hospitals in their community are open to them they are in luck. But certain institutions will not extend that courtesy to all physicians and surgeons. That situation may be due to petty jealousies of the "staff", or to other reasons. Those doctors have to take their patients somewhere, and the privately owned hospital becomes their haven under these circumstances.

So far as maternity work is concerned, the owners of quite a few apartment houses openly say they do not care to have babies born in their apartments, and if a woman residing there becomes pregnant they will insist that she go elsewhere to be delivered. If the physician in that case is not connected with a general hospital he must take the patient to a privately owned hospital.

The American College of Surgeons sends an inspector to the privately owned hospitals and will approve the place, partially or fully, depending entirely upon the extent to which the requirements of the College are met. Requirements regarding records are amusing to all of us who are interested in general hospitals, because we know the difficulty we have to get the members of the staff to keep records properly. That is the *bête noir* of the staff. The records are generally everything that they should not be, so far as the work of the staff is concerned. The attending physician is too busy to make records. Of course, the College properly insists that records shall be kept in the prescribed form, and requires these hospitals to keep records in order to be fully approved. The physicians who take work to private hospitals are not going to keep histories and make periodic records of everything. They simply will not do it. So that puts many of these hospitals in the position of not being fully approved by the College, as they will not drive away the doctors who bring patients in. And, when a doctor takes his patients to a privately owned hospital, he feels free to do as he pleases. I know many physicians who will send the bulk of their work to the private hospitals rather than submit to the annoyance of keeping records.

Then, the College requires that they shall have stated meetings of their "staff". They have no staff where the hospital is run for commercial gain or by a corporation, perhaps. I asked an inspector what he would do where there is no staff in a privately owned hospital. He said the superintendent should call together once a month the more prominent physicians who are sending in cases and let them constitute a clinical conference, discuss the records, etc. Those two conditions, keeping the records and having stated meetings, if not complied with, throw out the possibility of some institutions being approved by the College.

A privately owned hospital does fill a very valuable niche in hospitalization, and in some of our larger cities, great sums of money are being invested in elaborate hotel-hospital facilities; investments which seem to me not to offer financial success. However, as Dr. Morrison has said, these institutions should be regularly inspected, they should be placed under some sort of control; something should be done to hold them up to higher ideals and standards; and if there is a check on them so far as the state administration is concerned, I think it would be welcomed by those who are conducting institutions of the higher type.

I am quite sure that in Pennsylvania we are glad to welcome anything and do anything we

can to further some legislation that will bring about state control of the privately owned hospital, because it is a large problem. Those who have the higher ideals in running the private hospitals would welcome such measures because they are trying to do the square thing and they feel that other institutions of the same type ought to be brought up to the higher level.

*Dr. Joseph S. Lawrence*, New York: I am very glad to contribute, if possible, to the discussion of this most admirable paper of Dr. Morrison's on a subject that at the present time needs much consideration by physicians.

To inform you with regard to what New York State does in the way of inspecting its hospitals, I may say that only those hospitals that accept public funds are open to any type of inspection; or those that accept maternity cases, or pediatric cases. All these are inspected by the State Board of Charities, which has a division on Hospital Inspection. The inspection is a very elementary affair as compared with the very elaborate questionnaire Dr. Morrison speaks of. They only look into the clinical facilities and, to a small extent, the character of conduct of the hospital. Of course, hospitals that conduct nurses' training schools are inspected by the Department of Education for the purpose of determining what their facilities are for training nurses.

There was a Bill introduced last year that would have made inspection of those hospitals that take drug addicts necessary, but that Bill was lost.

We have the private hospital in New York State in its various forms. We have the individual home, conducted by the physician for a few cases of his own. He may have set aside a few rooms in his house for this purpose. The rural physician sometimes sets aside certain rooms in his house for the care of maternity cases. We have the convalescent homes that are conducted by nurses and where a certain number of physicians keep them supplied with patients. Then we have the larger commercial venture, the "hospital hotel". I am not quite so pessimistic about these hospitals as Dr. Hammond is in regard to their success. Those conducted in New York have very high ideals and are succeeding. One such place is going to be extremely popular, I am told, probably working in with a sanatorium. It is no longer necessary to go out into the rural district or the mountains to secure a pleasant home in which to recuperate. One who is sick can go now to the large city and he does not need to stop at a big hotel but, paying the same prices, can stop at a hospital. These hospitals are not being organized entirely by medical men either. Laymen are organizing hospitals which are being conducted as nearly as possible like hotels. They are incorporating themselves, too, so that there will be little danger of prosecution for malpractice or lack of satisfaction on the part of the patient. We have every form of the private hospital, I believe, in New York, and certainly there is need for inspection or for licensing such hospitals.

Two or 3 thoughts impressed me as I listened to Dr. Morrison's paper and the discussions that followed. It seems to me we should have some definition of the term "hospital". I think we really need that in our laws in our 3 states. We should define the word hospital, which doesn't apply today very well because there are so many institutions or houses or schemes that probably would escape from any legislation that would be

attempted unless that legislation contained a concise definition of the term of the activities that we are trying to bring under control. It would be my opinion that the inspection and licensing must be done by a state department rather than by the state medical society; it should be a function of some permanent state department. The medical society, if it were to be granted such power, would, of course, be open immediately to criticism by those persons who happened not to be members of the medical society or by people who would consider that there were politics in the medical society. This might interfere with the enforcement of the law. But it could be well put under the department of health or the Department of Charities. Other states have different committees functioning under different names probably.

With reference to further procedure in the matter, I think this conference might, before adjourning today, appoint a committee, consisting probably of one person from each state represented, and that this committee in collaboration with the several legal counsels of these state societies, and the assistance of such persons as they may wish to have who are engaged in conducting hospitals or are well informed in hospital management, might be instructed to prepare a Bill that might apply to the 3 states, with some minor variations. Let us have that as early as feasible for consideration so that we might introduce it to our 3 legislatures at approximately the same time, because there is a good deal of interchange among the legislatures in regard to what is going on in these 3 states. I believe that if we had a Bill which was, in the major part the same, introduced in the 3 legislatures at one time, and provided we would all work for it, we would get somewhere.

It was suggested that the College of Surgeons would be the proper agency to handle this work. I believe that we can better do it ourselves, through our 3 medical societies, their counsels and such other persons as would be deemed advisable. After accomplishing it here, it would be left to the College of Surgeons to establish it over the United States. Nearly all of the correspondents indicated that they were of the opinion that there was need for such inspection or control. Connecticut said they had tried it. They had a Bill in last year or the year before and it failed of passage, so, without doubt, some educational work will be needed. But I do not believe there is much need of education in our 3 states. The people who are interested in the conduct of hospitals are aware of the need of which we are talking and if we drew up a Bill I think we would find that we would have a great deal of support in helping get it through.

*Dr. Ephraim Mulford, New Jersey:* It has just occurred to me as we have been listening to these distinguished gentlemen who have already given us their helpful opinions, that there exist in some of our communities—and I am speaking for the largest county in the state of New Jersey, and not the smallest population, having a population of about 90,000 people—many small nursing homes. To make the instance specific, in our county we have 2 small general hospitals, 32 beds in one and 10 beds in another, rendering wholly inadequate the hospitalization of patients that we have. There, of necessity, have sprung up all over our county, in all the towns, these little nursing homes. A woman not having any special qualifications at all will open her doors and take in women in

confinement. In behalf of children, there is not a single place in Burlington County open to children. Of course, many of the children have been taken to the larger centers, to Philadelphia, Trenton and Camden, but those hospitals have become filled, their population has grown, and it has gotten now to the point where it is almost impossible for us to get our sick children hospitalized. Consequently, we have made a drive and are building a hospital of 100 beds, modern in every respect. That hospital we are very proud of and it will have to be manned by those of us who can and will give of our time. Speaking of the American College of Surgeons being able to manage this situation, if our hospital had to be manned by men who are members of the American College of Surgeons or Physicians, we would not be able to run it. I am not able to convey to you the chaotic condition that exists in our county as to the state of hospitalization and the condition of these homes where women and children are being taken, maternity and pediatric cases especially. It is a terrible state of affairs, one that I am heartily ashamed of, and I feel that state regulation of these hospitals is most important. I do not know of any topic that could have been brought up today that comes more vitally home to us than this. But I do hope that in framing the law you will be a bit more lenient than in the law that Dr. Morrison has suggested, for if that law were established we would not be able to operate our institution at all.

*Dr. Morrison, New Jersey (closing):* This subject has brought out so much discussion from so many points of view that it will be very difficult to sum up in any concise or consecutive manner. There are a great many points, however, to which I would like to make reference.

I purposely left out of my original remarks all reference to the type of work done in these private hospitals and the capacity of the buildings, because I wanted information to come from those outside of New Jersey as to what the conditions are in the other states. I wanted the opinion of you men as to the work done in these hospitals so that it might be compared with conditions we have in New Jersey. I would divide these hospitals into a little larger group than Dr. Sadlier does. We have first, the type of private hospital where very excellent work is done by the highest type surgeon in the state. In New Jersey we have several such hospitals; well equipped; fireproof; the sanitary conditions are good; and the character of work is equal to what is done in any of our good hospitals.

Then we have another class of hospitals, far larger, where I might say the work is good and is done by good men and they are not members of the College of Surgeons. They do not have appointments on regularly incorporated staffs, but they have a broad experience in surgery and meet the requirements of local conditions in such manner that the people in that community are getting adequate medical and surgical attention where no such attention could be given if these hospitals were not in existence. There is always there the possibility of improvement and under such regulations—not law, but regulations—that type of work can always be improved.

A third class of hospital is that where the work is indifferently good, to fair, to poor, and those hospitals are run by men of mediocre ability and education, who lack the proper training and experience, either medical or surgical.

The fourth type is the hospital that should re-



ceive the ban of the entire medical profession, the hospital where we know unlawful surgical work is done and where criminal work is always at a high stand. That makes a little broader division of the work.

Now, there is no intention on our part to limit the number of these hospitals. The condition, as Dr. Sadlier says, exists all over the United States. We see more of it here because this district is intensely industrial and has large European populations that are growing rapidly, and with that comes the necessity and demand for hospitalization. These patients cannot all be taken care of in general and incorporated hospitals, the capacity is not sufficient. We in New Jersey at present are underhospitalized, I think about 30%, in a population that is growing very rapidly. The private hospital is here and we hope it is here to stay. The idea in mind is to regulate these hospitals, first by law, then by regulation under power of the law, so that there will be a progressive improvement in every institution visited.

As to the matter of records, I wish I could agree with Dr. Hammond that it is absolutely impossible or would be impossible to secure and maintain records in these institutions, but I do not. When the College of Surgeons first began its work the greatest bugbear it had to overcome was the matter of records and those of us who have been associated with the hospitals, as you all are, know the insistent daily, monthly and yearly drive to get records; but now they are fairly good records. Records would never have been kept in those hospitals had it not been for the insistence of the American College of Surgeons. Now, if some department, given legal power by the state, will insist upon the production and keeping of a similar class of records, or no work permitted, those records will be forthcoming. At first they will be crude, useless, but they are records and it is a step in the right direction. As the years go on the type of record is bound to improve until it will approach the type or record kept in our good hospitals.

The fact that 47% of the people hospitalized in the United States are taken care of in these private hospitals shows the absolute necessity for them all over the union, not only in our 3 states, and shows the necessity for attempting to put in force some regular authorized supervision and control.

I am glad to hear this discussion of the American College of Surgeons. We must give them due credit for all that has been done.

There is no question about the third type of hospital to which I refer. The poor work being done by a certain class of physicians is done by men who bind themselves together—men who cannot secure appointments on any hospital staff—to do medical, surgical and obstetric work such as comes within their line of practice and which they feel must be hospitalized. They will not send their patients to men better qualified but do the work themselves simply because there is no supervision that prevents them from doing it. There are many hospitals that could take care of these patients but they will not give up that lucrative work until some supervision is placed over them that will compel them to seek the approval of the rest of the medical profession.

A great deal is being done by municipalities, apart from state authorities, along certain lines. For instance, in Newark, a year ago an investi-

gation was made by the Board of Fire Commissioners, with the idea that nonfireproof buildings, buildings without fire escapes and sprinkling systems approved by the Fire Commissioners, must be closed. We had a hospital with a 100 bed capacity in a series of frame buildings. We had spent a great deal of money in adequate fire escapes, but it was a frame building and we were ordered to close. That same order affected 17 hospitals in the city of Newark. We put a sprinkling system in and that seemed sufficient to them. Many of the smaller hospitals are putting in sprinkling systems also.

If such a law is drawn up it should contain a clear definition of what constitutes a hospital, so that there would be no loophole. Any place where two or more patients are treated for longer than a few hours emergency, should be typed a hospital; and it doesn't matter what the treatment is, by what class of people, physicians, nurses or others. The definition will cover it all if it is broad enough.

I feel again like insisting that the whole matter should be put under some state department. I do not feel that the state medical society would have power enough, unless it were granted that power by law, to carry out the proper regulations. And if it were proposed by the state medical society, which in our state only represents about one-half the practicing physicians, it could never be secured by legislation and I doubt the efficacy of it as compared with a well organized state department. That law should carry with it the power of regulation and the regulation can be specified and enforced by an authorized body. The medical society in each state, if you have the same degree of coöperation with state department that we have in New Jersey, will have no trouble in securing the control that the medical society wishes to enforce.

*Dr. Henry O. Reik*, New Jersey: I would like to say a word on behalf of Commissioner Ellis of the State Board of Institutions and Agencies. I had a long conversation with him yesterday and I think this has an important bearing on what has been said here. Dr. Morrison read the regulations which are very much better than the original letter. Mr. Ellis is very keen for this whole proposition. He wants it amended to cover the points you have been discussing. He is very anxious to have the law amended and would like to have submitted to him for presentation to the legislature some such model law as Dr. Lawrence has spoken about.

If Dr. Lawrence meant to offer that as a motion, that a committee composed of representatives from each of the states be appointed, to act with other authorities as they deemed wise, to draft a model law to be presented in the 3 state legislatures, I heartily second the motion.

*Dr. Conaway*: You have heard the motion, now duly seconded, all in favor please say "aye"; those opposed "no"; it is adopted unanimously.

The President asked Dr. Sadlier and Dr. Morgan to appoint some one from their respective states and stated that he would do the same for New Jersey.

*Dr. Morgan* of Pennsylvania offered the following resolution:

It is the sense of this Tristate Conference, representing the state medical societies of New York, New Jersey and Pennsylvania, that there is urgent need for legislation in each state in the union, regulating the organization and scope of private hospitals, in respect to location, per-

sonnel and character of work essayed, and that the appropriate state department should be clothed with power sufficient to accomplish this purpose.

We recommend that our several state medical societies shall at once take up discussion of this problem, leading to enactment of appropriate laws at the next session of our state legislatures.

This resolution was seconded by Dr. Lawrence and adopted.

*Dr. Morgan:* I would like to read part of a letter that conveys an idea used by the Committee on Public Health in Illinois, during the recent session of the legislature, which I am informed was a big force in defeating the attempts of the cults to have some special legislation enacted. It is from the Secretary of the Anatomical Board of the State of Pennsylvania and states: "Since 1899 no cadaveric material has been distributed to either of these so-called systems of human relief." The fact that these cults do not provide material for dissection, and do not demand that dissection shall be practiced by their students, proved to be a strong argument in Illinois and I am sure is well worthy of repetition in our several states.

*Dr. Reik:* With reference to possible legislation to be considered in our states during the next year, I am sure the representatives from Pennsylvania and New York will be interested to hear that in all probability a Bill will be introduced providing for the annual registration of physicians in New Jersey. It was brought before the House of Delegates of the State Medical Society by the Board of Medical Examiners in June and met with hearty approval. It is now under consideration by the Welfare Committee and I think it will unquestionably be endorsed by nearly all of the county society organizations. While it will not be introduced by the Medical Society, it will be introduced by the Board of Examiners with the support of the medical profession.

In the minutes of the last meeting, the subject was under discussion as to our asking the Radio Corporation of America to appoint on their Advisory Committee some medical man of recognized authority and ethical standing to advise them concerning any proposition for broadcasting of medical matters. I was authorized by resolution to communicate with them and agreed with Dr. Sadlier to arrange for a visit in New York. When we discussed the subject later, however, we remembered that the matter had been put up to the A. M. A., and wrote to Dr. Phillips about it. Action taken had not culminated in anything up to that time and as summer vacation was approaching we felt we should not do anything further until the A. M. A. had ample chance to do whatever they wanted.

We are now in the broadcasting room of Radio Station WHAR, which station has been placed at the disposal of the New Jersey State Society for carrying on its educational program. Every Friday evening, beginning with December 2, we will have the air for 15 minutes; and we think we are in a very advanced position for putting out a big medical educational program. I thought you would be interested to know that the Medical Society of New Jersey has a definite hour each week at its disposal for broadcasting, and you may consider the desirability of securing such privileges for the state societies of New York and Pennsylvania.

*Dr. Lawrence:* Our Board of Health broadcasts every Friday evening from WGY and they have covered the field very thoroughly. The Health

Department in Syracuse, also, has gone on the air on several occasions, and the State Charities Aid has been broadcasting in regard to the Antidiphtheria Campaign, so I don't believe we need to concern ourselves about that in New York.

*Dr. Reik:* The next place of meeting is to be determined, and the topics for discussion considered.

*Dr. Sadlier:* I assure you that New York will be delighted to have privilege of entertaining you at the next meeting.

*Dr. Reik:* The time of meeting will be about the middle of January. It is for the New York men to determine what the topics will be for discussion, but it occurs to me to ask whether it might not be an appropriate time to consider the need of legislation bearing upon expert medical testimony. Two years ago the National Bar Association, meeting at Cleveland, drafted a model law of this kind which I think has not been anywhere put into effect. Several of the states, notably Missouri, have very good laws on that subject and I think it might be a topic worthy of consideration next time.

*Dr. Lawrence:* I want to heartily endorse this suggestion in regard to expert medical testimony. I am sure Dr. Sadlier and I would like to hear whether that would be in accord with the desires of the other men. Further, we have been functioning now for 3 years and thus far we have spent most of our time in acquainting ourselves with the problems of our several states. Those of us who have been regular attendants have, I think, a pretty general idea of what the problems are. Can't we now begin to select certain things upon which we can coordinate our thoughts, certain activities upon which we may get to work so that the public may see it as the united movement of the 3 societies. I thought we might all come forward with a list of activities on which we could unite.

*Dr. Reik:* I move that the arrangement of the program be left to the New York representatives.

*Dr. Morrison:* As Dr. Lawrence has said, we have had an opportunity to feel out the utility of this conference during the last 3 years and to measure the degree of importance of the subjects discussed. There is no question as to its value. It will be my privilege to discuss before the Secretaries of the A. M. A., at the request of Dr. West, just what this conference has done in the last 3 years, with the idea of extending its activities all over the United States. This gives us an idea of what the approval of organized medicine is. There are so many topics coming up all the time that can be better fostered by the united coöperation of the 3 societies that I feel the time has come when we might begin to specify the work and broadcast it to the public with an educational idea in view.

Dr. Morgan and Dr. Sharpless heartily approved of the suggestion.

Adjournment at 1:20 p. m.

## TWENTY-FIRST ANNUAL MEETING NEW JERSEY TUBERCULOSIS LEAGUE

Newark, N. J., October 21-22, 1927.

The annual convention was held in the Academy of Medicine of Northern New Jersey under the presidency of Marcus W. Newcomb, and was very largely attended. The following address and reports constituted important features of the convention, though it is regrettable



that we have not for publication a report of the "Round Table Discussion" and other intimate proceedings that helped make this gathering such a success.

#### Presidential Address

Marcus W. Newcomb, M. D.,  
Brown's Mills, N. J.

For a long time I have been of the opinion that there is one medical man of international reputation who has never been given the credit due him in the organization of the National Tuberculosis Association and in the fight against tuberculosis. The man I have in mind is no other than our beloved Sir William Osler. I should like, in the short time allotted to me, to talk about this brilliant man whose life has left such an impress upon the medical world.

Although Sir William Osler was not an American, he held two professorships with us, one at the University of Pennsylvania and the other at Johns Hopkins University, and thus he was among us so long that we can call him one of our own.

He was the youngest of a large family and was born on July 12, 1849, in a parsonage at Bond Head, in the wilderness of Upper Canada. It is not unlikely that Osler had many hardships in his young life, as Bond Head was rather isolated. The nearest post office was 12 miles away, the nearest doctor 15 miles away, and the roads and means of travel were far different from those at the present time. When he was 8 years old, his father was transferred to Dundas, a town on Lake Ontario, about half-way between Toronto and Niagara.

William Osler was evidently a real boy, during his grammar school days, and Dr. Harvey Cushing, in his biography of Osler, records many amusing episodes. One morning the school-master found a flock of geese locked in the school room, and another Monday morning he found that the room had been cleared of all desks and furniture over the week-end. For these, and perhaps several other pranks, he was expelled from this school. After this, he was entered at the Barrie Grammar School, which was a boarding school, but he carried his fun and mischief with him, and was not long in finding colleagues as eager for adventure as himself. It is related that one of the boys dared him to throw stones at some pigs in a field. He would not take a dare, of course, but the first stone thrown hit a pig behind the ear, and it rolled over dead. At another time, William, or one of his chums, climbed up on a roof and covered the chimney with a board, so that the smoke would come out into the room and make people think that the house was on fire; which it did, and the fire department was called out. Once, William and his chum answered an American "ad" for a wife. Milburn dressed as the blonde and Osler as the brunette. They met the farmer at the Grand Trunk Station, and the latter asked for another interview in the day time, but they insisted that he must choose either the blonde or the brunette at this time, and he finally decided to take the blonde. He said he would go home and fix his house and return in a month for his bride. This love of fun lasted throughout Osler's life, and those who knew him best said that he was always jolly and always saw the funny side of things in his every day work. It was perhaps this trait that enabled him to

carry so much work, and to accomplish as much as he did.

After leaving the school at Barrie, he entered a school at Weston, just a few miles west of Toronto, which later became known as Trinity College. It was at this time that he came under the influence of Rev. W. A. Johnson and his microscope. Rev. Johnson was a naturalist, and on week-ends he would take trips into the country to study the different woods, minerals, and insects. He brought home many specimens for microscopic study, and this was the beginning of Osler's investigation interests. Whenever possible, Osler would go into the swamps and hunt for all kinds of organisms to examine under the microscope. About this time, Dr. James Bovell was appointed Medical Director of Trinity College, and it has been said that the influence of Rev. Johnson and Dr. Bovell shaped the career of the great Osler. Up to this time Osler had expected to enter the church, but in the fall of 1868 he entered the Toronto Medical School. Here he was noted for his interest in his work. He was said to have spent more time in the dissecting room than any other student in the class. He left Toronto and went to the McGill Medical School, where he was graduated in 1872. In addition to the regular prizes, the faculty awarded him a special prize for a thesis which was greatly distinguished for originality and research and was accompanied by 33 microscopic and other preparations of morbid structure. All through the life of Osler his love for the microscope is noticeable.

After graduating, he spent about 2 years abroad, studying under the masters. Upon his return, he practiced general medicine in his home town for a short period. He also served as *locum tenens* for Dr. Charles O'Reilly, in Hamilton, and tradition says he was to receive for his salary \$25 and a pair of boots which were too small for Dr. O'Reilly. It was at this time that the Professor of the Institutes of Medicine at McGill resigned, and Dr. Osler was appointed to take his place. A little later, he was appointed a Demonstrator of Anatomy. About this time an epidemic of small-pox occurred, and Osler volunteered for service, which was just to his liking as it put the postmortem work under his control. Later, he was appointed full physician to the Montreal General Hospital, where he spent all the time possible in the postmortem room, studying morbid anatomy and laying the foundation for his brilliant career.

On March 24, 1882, Robert Koch gave his address in Berlin, proving he had found the tubercle bacillus. In the July issue of Ross's Journal, a note appeared saying that Professor Osler had demonstrated the organism in the lung of a man who had died from tuberculosis. This was the beginning of Osler's interest in tuberculosis, and it never waned during the remainder of his life.

When Dr. Osler was offered the chair of Clinical Medicine at the University of Pennsylvania, he flipped a coin to decide whether he should accept it. He called heads, and fortunately for the University, heads it came. He arrived in Philadelphia on October 11, 1884. With his arrival, Pennsylvania, and Medical Schools in general, were to begin a new era in methods of teaching medicine. Osler was determined that medicine could not be taught by didactic lectures alone, but that it must be taught at the bed side, with small groups of

students. He was not a brilliant orator like his predecessor, Dr. Stille, or the dignified Dr. Pepper, and some were at first disappointed in him, but this disappointment soon gave way to devotion. There were better things in store for the students, and they were not long in finding it out. Very soon, whenever Dr. Osler went through the wards, a crowd of students would be found following him, eager to hear him go over his cases. Osler's disinclination for general practice could not be understood by his medical colleagues. Instead of having afternoon office hours, he could be found in the postmortem room at Blockley with a group of students making autopsies. Osler is the man who revolutionized teaching in the medical schools of the United States. He met with much opposition but he always came out ahead with flying colors. Dr. W. W. Keen writes that wherever he went, the wheels began to go round, things began to be done, and all for the good of the profession and of the community. Up to Osler's time, there was no laboratory at the University Hospital and there was no microscope in use except Osler's.

From Philadelphia he went to Baltimore to take charge of the Medical Department of Johns Hopkins Medical School. Here he held full sway and organized the department along the same lines, working with students at the bedside and in the postmortem room. It was during his stay in Baltimore that Osler made his best contributions to the Medical World. The amount of work he did is almost inconceivable; hospital work, consultation work, writing articles for several medical journals and keeping up his correspondence with all his friends and colleagues. Never have we seen in one man the equal of Dr. Osler as a pathologist and a clinician.

In 1905 he left America to become Regius Professor of Medicine at Oxford, and this most distinguished chair he held when he died.

Now, what did Dr. Osler do in the tuberculosis field? After Koch's memorable paper, he was one of the first to stain and demonstrate the tubercle bacillus. During Dr. Osler's Montreal period, he was interested in lung pathology, especially "miner's lung" (anthracosis). In Baltimore he organized a Laennec Society for the study of tuberculosis, and the first meeting was held on October 30, 1900. This was the first society of its kind in the country and perhaps in the world. In 1902, as the result of his speeches and work in Baltimore, the Maryland State Legislature passed a bill creating a tuberculosis commission. This was the beginning of the tuberculosis work in Maryland, which has grown by rapid strides. On December 3, 1903, he delivered a lecture for Dr. Flick in the auditorium of Witherspoon Hall on the subject of "The Home in its Relation to the Tuberculosis Problem." About this time he had a gift of \$20,000 from Mr. Phipps for a special out-patient tuberculosis dispensary at Johns Hopkins Hospital.

Dr. Osler was chairman of the committee appointed for the purpose of organizing a National Tuberculosis Association. Just before sailing for England, he delivered an address at the first annual meeting, in which he urged that every general hospital have wards for tuberculosis cases, so as to educate the interns, students, and nurses. Most of our general hospitals have not taken Dr. Osler's advice.

In England he continued to wage the fight against tuberculosis. He was responsible for the organization of the Antituberculosis Society

for Oxfordshire, and later the tuberculosis exhibitions and conferences were held in Oxford and were largely attended.

Dr. Osler was interested in pulmonary diseases from his graduation until his death, both from the clinical and from the pathologic side. He was one of the first men in America to recognize or teach that pleurisy with effusion was of tuberculous origin. He was always ready to speak on the subject before medical societies, laymen or legislators, pleading for public health laws which would protect and prevent the infection of thousands of citizens. A few of Osler's addresses and papers are as follows: Healing of Tuberculosis; Acute Pneumonic Tuberculosis; The Home in its Relation to the Tuberculosis Problem; Tubercle Bacilli in the Urine; Diagnosis of Tuberculous Bronchopneumonia in Children; Tuberculous Peritonitis; Report of Cases of Tuberculous Pleurisy, with Autopsy; Tuberculous Pericarditis; Tuberculous Pleurisy; Notes on Tuberculosis in Children; Toxemia in Tuberculosis; Typhoid Fever and Tuberculosis; Home Treatment of Consumption; The Registration of Pulmonary Tuberculosis; What the Public Can Do in the Fight against Tuberculosis; Address on the Tuberculous Soldier; and many others.

We may close with what Dr. Osler termed the "last word," on the subject of tuberculosis, to the general practitioner. "The leadership of the battle against the scourge is in your hands. Much has been done, much remains to do. By early diagnosis and prompt, systematic treatment of individual cases, by striving in every way possible to improve the social condition of the poor, by joining actively in the work of the local and national tuberculosis associations, you can help in the most important and hopeful campaign ever undertaken by the profession."

#### CO-OPERATIVE AGENCIES

Henry O. Reik, M. D.,

Editor of the Journal of the Medical Society of New Jersey, Atlantic City, New Jersey.

Dr. Walt P. Conaway, President of the Medical Society of New Jersey, had expected to be with you today but circumstances over which he had no control arose to prevent his coming. With considerable reluctance, I have responded to his instructions to represent the State Medical Society in his stead, reluctant not because of any unwillingness to bring a message from that organization to you but because I feel my own inadequacy to properly perform the task for which he was chosen.

The theme of this conference—coöperative agencies—is one that interests us greatly. The spirit of coöperation has dominated every act of the State Medical Society during the 3 years it has been my privilege to be associated with the work of that organization, and I can assure you that we will welcome any opportunity to coöperate with the New Jersey Tuberculosis League or any of its district branches. It may be necessary for you to indicate to us at times the ways in which we can best aid the development of your medical programs, whether dealing with preventive or curative measures. Our society is composed of more than 2300 active physicians, and as the majority of those members are general practitioners, concerned daily with the fight against nearly every known disease, they cannot always promptly recognize the importance of



movements directed by specialists in some one limited field of medicine. They are, however, generally responsive when their attention is focused upon a particular project that gives hope of limiting the ravages of any disease. We would respectfully suggest, therefore, that in this battle for the conquest of tuberculosis, you who have given most study to the problem and have planned a campaign to destroy the enemy, shall tell us how we can most effectively play our part in your schemes for the betterment of public health conditions.

From our own point of view, there are two means by which we may work along with you. The first of these is by using the Journal of the State Medical Society as a means of direct communication with the physicians of this state. In the natural course of events we publish a goodly amount of material relating to tuberculosis, but the Journal has not been used to anything like the extent it might be as a connecting link between this league and the general practitioner. Pursuant to a suggestion made by your Secretary, Mr. Easton, the Journal Publication Committee has authorized the Editor to republish portions of your monthly review sheet, or to aid with its distribution to physicians, and it is our pleasure to say to you now that the Journal columns will always be open to any new matter of importance that you may wish to get into the hands of our members.

The second method of procedure has to do with the State Society's public educational program. As a part of that work, we have made special arrangements for a broadcasting hour from station WHAR, Atlantic City, Friday evenings at 7:45 p. m., being assigned to us. In the first series of "Ten Minute Talks on Keeping Well," we are providing for 2 lectures upon the subject of tuberculosis, and we hope to secure further assistance from members of your League who will agree to fill in our time on some selected dates or to provide us with messages to be broadcast by our Executive Secretary.

If you have other specific coöperative measures to propose, the officers of the State Medical Society will be glad to give them due consideration.

### CO-OPERATIVE AGENCIES

Miss Virginia M. Chetwood, State Federation of Women's Clubs, Hackensack, N. J.

It is always a privilege to serve the New Jersey State Federation of Women's Clubs, and when the President, Mrs. Hubbard, asked me to represent her at the annual meeting of the New Jersey Tuberculosis League and tell of the Federation's interest and activity in tuberculosis work, I was glad to reply that I would do the best I could.

It is a difficult thing to define the term tuberculosis work, apart from that of care of the tuberculous sick and maintenance of clinics. It is among the many other activities which tend toward the prevention of the disease, where you will find the Federation women busy.

In child welfare work, they are endeavoring to produce the healthy child, fit to resist disease. Some clubs send undernourished children to camps, and other supply the needs of tuberculous children. Several clubs are relieving sickness in the homes, through the maintenance of visiting nurse services. Many others include nutrition classes, clinics and social service, with-

out which intelligent tuberculosis work cannot be done.

School nursing service, dental clinics, clean-up campaigns and promotion of health teaching has claimed the interest of the club women.

The "Periodic Health Examination" has been emphasized to the clubs, and speakers on that subject and nutrition have been in demand.

Again, active interest is shown in the state sanatorium and also in county institutions. Clothing, Christmas and Easter gifts have been sent, and fruit, magazines and other kinds of cheer are continued throughout the year. The Division of Public Health is stressing the State Child Hygiene program. The Welfare Departments of a number of clubs are responsible for the Christmas Seal Sale in their districts, the efficiency of which I can personally vouch. The Department of Legislation is always on guard, studying new health laws for support or opposition, rendering a service which reacts for the benefit of tuberculosis sufferers and the workers in that field of public health. The Department of Public Welfare includes the committees on Institutional Coöperation and Public Health, both of which are active in bringing to the clubs matters of interest and importance.

While very many specific tuberculosis activities are not undertaken by the New Jersey State Federation of Women's Clubs, I think you will agree that the women of New Jersey are making their contribution towards the decrease of this disease from the big field of public health.

### TRENDS IN THE MEDICAL AND SURGICAL TREATMENT OF TUBERCULOSIS

Allen K. Krause, M. D., Johns Hopkins Hospital, Baltimore, Md.

In 1900 there were only 42 sanatoriums for the treatment of tuberculosis in this country. By 1925 these had increased to more than 600 and the annual "turnover" of patients must now number upward of 150,000 a year in sanatoriums alone. Accordingly, during the last generation the trend of the treatment of tuberculosis may be summed up in one word, "Sanatorium."

The actual elements of medical treatment of the disease have not changed; they remain, as at the beginning of sanatorium treatment, fresh air, diet and a judicious balance of rest and exercise. But the relative importance of these agents has shifted greatly. Gradually, rest has come to be considered the most indispensable element, while diet and fresh air, though necessary, are viewed as of secondary importance. Meanwhile, also, a stricter and stricter regimen, or regulation of the patient's daily life, has characterized successful treatment.

For a long time the trend has been away from climatic treatment. Perhaps, from the old extreme view, that a radical change of climate was absolutely essential to the cure of consumption, the pendulum has swung too far toward the other extreme, that no benefit may be derived from climatic treatment. It has been satisfactorily established that tuberculosis patients in all stages of their disease, can regain health or be greatly and permanently improved by the proper treatment near home in practically every section of the country. Nevertheless, for those who can afford it, the right climate to be selected for the individual case has certain advantages and benefits that should not be denied

them. The best of climates is not to be recommended for any patient who might suffer undue strain in mind, body or purse to obtain it.

For practically every patient, with hardly an exception, the "proper" treatment means standard sanatorium treatment at some time or other during the course of disease. In nearly every case this is to be preferred at the beginning, or as soon as possible after symptoms have first manifested themselves. To delay or temporize is to court disaster and eventual failure in by far the large majority of instances.

Certain surgical methods of treatment, such as artificial pneumothorax and thoracoplasty, are developments of the last 10 or 15 years. They have proved their usefulness and are here to stay. But it should be understood that they are useful for only a limited number of patients, who must be carefully selected by expert specialists in tuberculosis according to well-understood and well-defined "indications." They have to their credit remarkable victories in cases that could not have been helped without them; yet, if carelessly or injudiciously used, they can do much more harm than good.

So-called "specific" treatment with all of the many "tuberculins" has been a great disappointment in practice. In a large number of patients it can never be employed without great risk or positive injury. In a very small proportion, again rigidly selected, it may help where all other measures have failed. But, in any event, only the expert of widest experience, should administer it.

The treatment of pulmonary tuberculosis by sunlight and artificial lights is on trial. There is, as yet, nothing certain or definite about it; nor can anyone predict what its future will bring forth. At the present stage of development it is to be applied with extreme caution, and discontinued, at least temporarily, upon the slightest appearance of untoward symptoms. The greatest danger in tuberculosis treatment today lies in the thoughtless or indiscriminate exploitation of light therapy.

By and large, we may say that sanatorium treatment, in first-class institutions, is for all patients with pulmonary tuberculosis, whatever their type of disease may be. It can harm none; with the patients' whole-hearted coöperation it will benefit most of them; and it will restore the larger proportion to active life. All other methods of treatment have special and restricted fields with varying limits of usefulness; and every one of them can work positive, and frequently irreparable, harm when injudiciously employed. All treatment of tuberculosis requires a physician's care; and usually this is never more necessary than for a long time after the patient's symptoms have disappeared and he has regained a measure of health.

## PERIODIC HEALTH EXAMINATION OF ADULTS

Henry O. Reik, M. D.,

Editor of the Journal of the Medical Society of New Jersey, Atlantic City, New Jersey.

It has been our privilege to devote a considerable amount of time during the past 3 years to the advocacy of periodic health examinations as a means of prolonging life. Our work has necessitated approaching this problem from 2 distinctively different angles. Through the

county medical societies we have been urging the family physician to respond to the public demand for health examinations and to make this work a part of his scientific contribution to the advancement of preventive medicine. Through various lay organizations, such as Rotary and Kiwanis clubs, Y. M. C. A. groups and, more recently, women's social clubs, we have endeavored to direct the growing public demand for these examinations into proper channels; to point out that the family physician is the proper agency for the making of such examinations as well as for the furnishing of advice in the event that abnormalities are discovered. In the talks given to both classes we have stressed the importance to adults of the periodic health examination, using the statistical records to show that while the average longevity of the inhabitants of this country has been markedly increased during the past half century, the gain in number of years of life has been attained mainly through reduction of infant mortality and those protective measures that have been thrown around school children.

It is not necessary to repeat to this audience the arguments employed nor the recommendations made as to what adults may and should do to protect themselves individually and to assist in still further extending the average of national longevity. You will probably be more interested in hearing that we believe our propaganda is showing some definite results; not that we can yet claim to have added anything noticeable to the average duration of the life term of all our people, but that we know of many individuals who have profited by the advice to submit themselves for examination, and that we observe a steadily increasing interest on the part of both the profession and the laity.

During the first year of our public work we had to seek opportunities to address lay organizations. Today we are receiving invitations to appear before such groups. Even more pleasing, and somewhat flattering, is the fact that we are now receiving some invitations to make a return visit to towns previously visited: 2 requests of that character having come to hand within the past week, and one of them stating that "we hope you will give our Rotary Club the same kind of an advisory talk that you presented to the Kiwanis Club last spring." This shows a definite awakening to the importance of this question.

We have taken the position, and there is no difficulty in maintaining it, that a periodic health examination cannot help being of some value to any adult human being. Even assuming that we started out as perfect models for the development of an Apollo or a Venus, scarcely one of us can have passed through childhood and out of youth into manhood or womanhood without having acquired some abnormal trait or habit or injury that may tend toward the shortening of our lives if neglected. It is a recognized fact that curative medical measures depend more upon securing contact with the patient while his malady is in an incipient stage than upon any other single factor. This holds true in practically every branch of medicine, for even the ophthalmologist, the otologist, and the general surgeon are alike constantly voicing the refrain—we might have cured this condition had we seen the patient in the earlier stages of his affliction. The fight against tuberculosis and against cancer, hinge almost



entirely upon this point—recognition of the disease in its incipency.

Such early recognition of the onset of disease can rarely be made by the victim himself, and we are not aware of any more promising way to ascertain the existence of abnormalities or the commencement of dangerous disease processes than is to be found in the physical health examination of our apparently healthy adult citizens. So, we are busily engaged in urging every adult to visit the family physician for a thorough and complete examination that shall disclose whether or not he is as fit as he believes himself to be.

REPORT OF SECRETARY

Mrs. E. G. Shreve, Pleasantville, N. J.  
As a partial report of the League's activities was given in the February Bulletin, it may suffice to comment at this time on various statewide activities as well as to point out the trend in local work.

Death Rate

Reports from the State Registrar of Vital Statistics indicate that the death rate for 1926 has increased from 82.9 in 1925 to 86.6 in 1926 per 100,000 population; 16 of the 21 counties show increases while 5 show decreases. Early reports from the eastern and northern Atlantic states also show increases while some of the mid-western states show declines in death rates. Canada's death rate went up about 4 points. New Jersey's death rate for 1926 now equals the nation's death rate for 1925.

It is difficult to attribute the increase to any one cause. We have had no great epidemic of the respiratory diseases and there has been no great change in our economic situation. Much more unemployment has been reported, however, which no doubt has had its untoward influence. There has also been a large influx of Negroes from the South whose death rate is usually much higher than that of the whites. In 1917 there were 384 deaths among Negroes, while in 1926 there were 435. A special study by the National Tuberculosis Association of the High School group called the "Neglected Age" shows that the decline has not been so rapid in this group as in other age groups. The Metropolitan Life Insurance Company points out that since 1915 there has been a reversal of the sex incidence of tuberculosis and that each year the excess of death rate among young women has become more marked. In 1915 the mortality among young white women between 20 and 25 years was 2.6% in excess of that for males, while for 2 recent years the mortality for young females has actually exceeded that among males by more than 50%. One possible cause for this is the increasing industrialization of young women, with the stress of regular employment and a greater chance to contract tuberculous infection. Miss Jessamine Whitney, statistician of the National Tuberculosis Association, adds: "The extra-curriculum of High School and College students, a different and more virulent type of disease at the younger ages, jazz parties, late hours, the scanty clothing of the present day young women, physiologic changes following the adolescent period, the dieting fad—all these in varying degrees may have had their part in the result."

A closer study of the deaths by age groups,

by sex, by race and by color may point the way to check any further increases. However, it can hardly be expected that a continuous decline can be reported over a great many consecutive years. A certain amount of fluctuation must not be taken too seriously. It does challenge us, however, and calls for an increased effort on our part along lines that have proved effective in the past.

Looking at it from another angle, we have much cause for rejoicing. If as many people had died from tuberculosis in New Jersey in the years succeeding 1917 as in 1917, 41,526 persons would have died. Actually 30,443 died; showing a saving in lives of 11,083. If the death rate of 1917 had prevailed for the next 10 years, 45,773 would have died. The actual rates on this basis would show a saving of 15,330 lives. Now if each life is worth \$5000 to the State, this would mean an economic saving of \$76,-650,000, a nice little sum saved for the State as a result of the increased health of the people.

Work of Government Agencies Clinical Facilities

A settled policy of the League as well as that of local associations has been to lend as much assistance as possible toward placing control of tuberculosis in the hands of the official agencies. This policy is largely responsible for the number of clinics and nurses as a part of local health administrations as well as the State Clinics. It is gratifying to note that the appropriation for State Clinics under the State Sanatorium was increased to \$15,000 a year, so that another clinician could be added to the staff. About 40 clinics a month are now held, principally in rural territory. These clinics serve as places for patients to apply for admission to the sanatorium but also offer opportunity for the physicians of the state to get consultation service. The monthly or semimonthly clinic also serves as a stimulus for our nurses as well as the public health nurses and social agencies to have any suspects examined. This has resulted in the finding of many more incipient cases. In some of the rural districts the clinicians have carried out the Massachusetts plan of examining school children who are 10% underweight and suggesting the correction of certain defects. This is providing a type of medical service much needed in our rural communities. In this connection it should be said that many of the county sanatoriums are conducting a similar service so that the county sanatorium with its radiating clinics can truly be said to be a real health center.

Lack of Beds For Care of the Tuberculous

New Jersey still lacks nearly 1000 beds to adequately care for its tuberculous. About 100 beds have been added to the capacity of county sanatoriums by the building of nurses' homes or employees' buildings, thus releasing these beds for patients. At the State Sanatorium at Glen Gardner, a new building for 114 children is nearing completion. On September 10, ground was broken in Passaic County, just outside of Paterson, for the Valley View Sanatorium of Passaic County to accommodate about 150 patients. The only large county now remaining without provision for a sanatorium is Middlesex, which is boarding its patients in 5 nearby county sanatoriums, or sending them to Pennsylvania institutions. The movement in north and

south Jersey to take care of rural counties too small for their own institutions has apparently not received enough local or state support. The patients from these counties at present are being taken care of in nearby counties or boarded in Pennsylvania institutions.

### Care of Surgical Cases

The State Commission, appointed at our request 2 years ago, to study the care of surgical cases of tuberculosis, has not as yet brought in its report. It would now seem that we should take some further action suggesting legislation recommending the care of bone and glandular cases in homes for the crippled or the establishment of separate institutions for the same. The Rehabilitation Clinic and some private agencies are doing splendid work but a coördination of these programs should be brought about. The New York plan of compulsory care for the early cases may be the proper solution.

### Bovine Tuberculosis

Another branch of the state government which is contributing in an official way to the eradication of tuberculosis is the Bureau of Animal Industry of the Department of Agriculture. Two bills sponsored by this department received the active support of the League and passed the Legislature at its Spring session, namely, the "area testing" of cattle, requiring the tuberculin testing of all cattle in a district when a certain number of the herd owners have assented, and the pasteurization of all milk not coming from tuberculin tested cattle. It will be several years before these laws can be put into full operation but it is believed that the effect of these laws will be to materially decrease the incidence of glandular and bone tuberculosis in childhood.

### School Hygiene

No doubt a great factor in the reduction of the death rate from tuberculosis has been the increased interest in school hygiene. Greater teacher training in hygiene in our Normal Schools is now a requirement. This is reflected in the interest shown in poster, essay and play writing contests. The transfer of the supervision of the Normal Schools to the State Commissioner of Education, who has stressed teacher training in hygiene, should bring about even greater results.

An important phase of the child hygiene program in rural communities has been the use of the Child Hygiene nurses of the State Board of Health. These nurses also assist in the finding of cases of tuberculosis.

The Physical Training and Hygiene Department of the State Board of Education is also cooperating with the League. A set of health games for the League's monthly bulletin has been promised. Exercises for correct posture will also be submitted.

### Programs of Voluntary Associations

The programs of the state and local governmental agencies are inevitably bound up in the attitude and activity of the local voluntary agencies. If the local body has carried on its program of education thoroughly, if it has demonstrated its program effectively and then stimulated the official body properly, the work taken over is usually a great success—a credit to the voluntary agency and a pride to the

public agency. The amount of work taken over by our public agencies and the existing close friendly relationships between the public and private group speaks well for the continued success of our movement.

### Local Aid

In order to make each local unit effective with a nurse in the field to assist at the clinics and the follow-up work of cases, the State League has found it necessary to assist some of the weaker counties financially, for a period. By this policy, every part of the state is now covered by an organization and nursing service. For several years the League has been convinced of the value of a nurse for rural counties. To make this possible, it has been contributing yearly between \$12,000 and \$13,000, but as about \$7000 has been coming back in the seal sale from territory not fully organized, the net contribution amounts to only \$5000 or \$6000 yearly. The salaries of many of these nurses in rural counties are now paid for in whole or in part out of public funds. Over \$20,000 a year is now being contributed by county freeholders and township boards of education for nursing service as an almost direct result of our investment. By means of an increased seal sale, as well as the public support, several counties have been able to put on 2 or 3 nurses, district the territory, and thus accomplish a much more satisfactory piece of work.

### Function of the State League

The State League is charged with the responsibility of seeing that the fight against tuberculosis in all its ramifications goes forward as rapidly as possible in all parts of the state. To do this we feel that every part of the state should be fully organized with an adequate program of work. This requires a great deal of field work but I believe we can confidently say that our efforts have not been in vain—every part of the state going forward almost as a solid phalanx. A national report just issued shows that New Jersey ranks third in the number of paid executives, fourth in the number of paid executives to the population, and second in the per capita seal sale. Usually, the part played by the state in any local program is largely advisory—offering suggestions to local groups, holding up the objective for which we are striving or stimulating them to greater efforts. We believe that these united efforts are shown in the declining death rate.

### Services Offered

In addition to field work and acting as a clearing-house for all kinds of information on statistics, cases, clinics, sanatoriums and public health questions, the League offers the following services which have their bearing on local programs and activities:

### Nutrition and Child Health

There is a constant demand for information on the newer phases of child health and nutrition. Teachers, normal schools, Parent-Teacher Associations, women's clubs and other groups that are molding the newer thought along child health lines are seeking our assistance. Practically all schools in New Jersey now accept weighing and measuring, as well as the correction of physical defects, as having a part in the



school program. This is largely the result of a modified nutrition program advocated by the League. The almost overwhelming demand for the teacher bulletin containing health suggestions shows a healthy attitude of mind on the part of the teachers to keep abreast of the time. The play writing contest was participated in by 15 High Schools.

There seems to be an increasing demand for education along public health and nursing lines. Not only do the hospital training schools welcome the course of lectures given by our advisory nurse, but in many instances are contributing toward the support of this work; 30 out of the 47 training schools accepted this service last year and about 20 are booked for this year. We hope that this is creating greater interest on the part of pupil nurses in health work and also in tending to raise the standard, not only of tuberculosis nursing but of all public health nursing. As most of our local associations are now carrying on a generalized nursing program, it is apparent that there are many problems requiring adjustment between tuberculosis, Red Cross, school hygiene and general or visiting nurse programs. The advisory nurse can play an important part in bringing about these adjustment.

#### Medical Education

A number of requests from medical groups have been received for the showing of our films, "Diagnosis of Tuberculosis" and "Pulmonary Tuberculosis"; also through the State Medical Society of "He Who Laughs Last"—a film showing the advisability of periodic physical examination. It is particularly gratifying that the State Medical Society has sponsored the periodic physical examination campaign from the medical point of view. This should mean that our campaign with the laity will go over big when the physicians are properly active along this line. Shortly a special medical review prepared by the National will go out to all the physicians of the state.

#### Diphtheria Campaign

By sponsoring a movement for diphtheria control, a state-wide committee was formed which is carrying on a campaign of education through existing groups. The purpose of this campaign is primarily to increase the use of toxin-antitoxin and thus immunize children against diphtheria.

#### New Films

By the purchase of 3 new films—"He Who Laughs Last," "Posture," and "Clara Cleans Her Teeth"—a new interest has been awakened in motion picture education. "He Who Laughs Last" is especially appropriate for industrial groups; "Posture" is valuable for special school groups; while "Clara Cleans Her Teeth" is of interest especially to school children. Requests for these films have been received to show them to all the pupils in the Newark schools. There is also a considerable demand for our older films, "Take No Chances," "New Jersey Health Crusaders," "Jinks," "Priceless Gift of Health," "The Kid Comes Through" and the Metropolitan film, "Working for Dear Life."

#### Exhibits and County Fairs

Many requests for assistance and material for special exhibits and county fair programs have been received. In most instances these exhibi-

tions have played up one point, such as, periodic health examination, dental work, weighing and measuring, or the use of milk. Reports from locals indicate that many persons so examined followed out the suggestions by having certain defects corrected. A poster exhibit and books with suggestions have been arranged on our third floor for the use of teachers and others desiring material of this kind. The automaton carrying 16 health messages has proved very popular and effective at all kinds of exhibitions, in store windows or vacant stores. It is easily adapted by the changing of the message for any special exhibit or the promotion of any cause, such as periodic health examinations, Negro health weeks, etc. It was used at the State Fair at the Glen Gardner Booth and several thousand pieces of literature were distributed.

#### Industrial Service

Although the industrial program is essentially a Newark service, the advice and assistance of the industrial secretary has been sought by several locals. Last year over 1000 examinations were made of employees in industry with splendid coöperation on the part of the management as well as the employees. Health units for smaller plants on a self-supporting basis is now our next step.

#### Service for Negroes

The Negro program is also essentially a service for Newark and vicinity, but our nurse has addressed many groups over the state. She also promoted the National Negro Health Week in New Jersey. It is hoped that a closer study of the fundamental causes for the high death rate among Negroes, as well as a more intensive educational program for this group, may be the means of saving many lives. By meeting various groups and showing the necessity for better health, many suspects have been induced to seek medical aid.

#### The Christmas Seal Sale

It is gratifying that there has been a steady increase in the number of Christmas Seals used in New Jersey. In 1926 our sale was \$269,-779.59 as against \$258,835.28 for 1925, an increase of about \$11,000. This continued growth can be accounted for by better organization and methods, by carrying on a program approved by the public, and the recognition of the seal as an appropriate means of expressing a holiday greeting and, at the same time, participating in a united local, state and national effort for better health.

The Christmas Seal is now recognized not only as a medium for raising funds to support nurses and do educational work, but the seal sale itself is considered an intensive educational proposition. Recently a prominent social worker, outside of the health field, stated that the Christmas Seal had done more than any other one thing to spread health information. Literally, millions of people have received health literature distributed as a result of the seal sale. There have also been essay contests, poster contests, play-writing contests and many addresses in our schools and before other groups as a result of the seal sale.

Not the least important part of our annual seal sale has been the enlistment of prominent men and women as well as the securing of coöperation of many influential groups. This

shows that the public in general are genuinely interested and are willing to help in any cause which tends to promote better health. The press has been most generous in its support. Our thanks are also due to the Outdoor Advertising Association and its members for the donation of about 350 spaces for our 24 sheet posters on billboards.

### Our Challenge

All of our best efforts are now challenged to prevent any further increases in the death rate in succeeding years. The millions of people who have placed their confidence in the tuberculosis program by contributing generously to the Christmas Seal Sale will now expect us to carry on with even more vigor and effectiveness than in the past.

### PERIODIC HEALTH EXAMINATIONS

Conducted at Atlantic County Fair, Egg Harbor, September 14-17, 1927, under joint direction of Atlantic County Medical Society and Public Health Committee of Atlantic County Fair Association.

Reported by Mrs. Caroline R. Shreve,  
Red Cross Nursing Service.

Since 1919, when the first public health exhibit was launched at the Atlantic County Fair by a group of health workers from the Tuberculosis, Red Cross and Child Health Agencies, great progress has been made in methods of extending health education to the thousands of visitors to the Fair Grounds.

Beginning operations in a small tent, the first year, the activities of the Public Health Committee consisted in giving out health literature, a rest tent for mothers and babies, a baby show and convincing the New Jersey Commissioner of Education, Dr. Calvin Kendall, that the modern health crusade was an excellent method of teaching health to New Jersey school children. Each year new ideas were used to promote health education, weighing and measuring of babies with the cooperation of the Bureau of Child Hygiene of the State Department of Health, weighing and measuring of school children, records kept and underweights referred to their respective schools, this being done by the Tuberculosis Committee. Advice on food and food budgets was given by representatives of the Inter-State Dairy Council. The County Red Cross Public Health nurses were present to answer questions and advise the mothers and fathers, who visited the tent, on questions of health and diet for their children.

In 1924, the Atlantic County Dental Society inaugurated a Dental Clinic, offering prizes for the best teeth among the children examined. These clinics have served to stimulate the movement to establish dental clinics in the county school districts.

In 1925, the Public Health Committee of the Fair Association decided to take a big step forward in an endeavor to bring to the attention of the public the importance of Periodic Health Examinations. The plan was taken up by the physicians on the Committee who were also members of the Staff of Pine Rest, the County Tuberculosis Hospital, and the Atlantic City Hospital. The Atlantic Tuberculosis Committee furnished the blanks, simple equipment was sup-

plied by the County Tuberculosis Hospital, and the County Red Cross Public Health Nurses assisted the medical staff of 3 men, each day. The first year 28 persons presented themselves for examination in 3 days. In 1926, 40 persons were examined during the 4 days of the fair; 8 of these had been examined the year before.

During the 7 years that the Public Health Committee had been functioning at the Fair, tents of varying degrees of excellence had been provided, seldom waterproof and quite unsuited to some of the uses they were subjected to. Only very crude quarters were possible for the health examinations but the staff of physicians, with true pioneer spirit, surmounted all difficulties; even extreme heat, flies and mosquitoes and leaky tent roofs with rain dripping through, did not quench their enthusiasm and interest in their task.

So worthwhile did the County Fair Association consider the work of the Public Health Committee, and so deeply did they appreciate the cooperation of the staff of physicians that a permanent building was promised to the Committee for housing of the Public Health Activities and for the quarters of the health examinations.

Early in the spring of 1927, the President of the County Medical Society appointed a Committee from the Society to cooperate with the Public Health Committee of the County Fair Association.

The promised building, 80x30 feet in size, constructed of steel, was erected. In a section 30x33 partitions were put up providing a Dental Clinic room; 3 examinations rooms; and a room for the taking of histories; in this room, too, temperatures, pulse and respirations were taken, as well as the weight and height of health clients. Adjoining this room was the first examining room which contained chairs, table and simple equipment for making eye, ear, nose and throat examinations. This was a dark room. The second examining room contained stretcher, screens, table and chairs, running water; in this room the examinations were completed. The third room used for consultations, contained tables, chairs, running water and had an exit for use of the personnel and the clients.

The interior walls of the rooms were painted white, the interior of the rest of the building was gray. The State Health Department, Bureau of Child Hygiene, the State Commission for the Blind, Betty Bacharach Home of B. P. O. Elks, weighing and measuring of school children by the Tuberculosis Committee, and the exhibit of the Welfare Department of the Metropolitan Life Insurance Company and the County Library, occupied spaces in the building not used for the health examinations.

A staff of 3 or 4 physicians made examinations from 2 to 4 p. m. on each of the 4 days of the Fair. Assisting was a corps of 5 nurses provided by the County Red Cross Public Health Nursing Service and the Tuberculosis Committee with 1 or 2 non-nurse assistants in the history taking room.

The examination cards issued by the Medical Society of New Jersey were used. On the first day, 11 were examined, 8 women and 3 men; the second day 16 included 9 women and 7 men; third day 20, of whom 12 were women and 8 men; fourth day 16 were examined, 9 women and 7 men; a total of 63, or 38 women and 25 men.



The financing of the health examinations was met by the Atlantic Tuberculosis Committee, local agency for the Health Examination in New Jersey. During the first 2 years of this venture of health examination at the County Fair, no effort was made to advertise other than items in newspapers and the premium lists of the Fair program, and personal solicitation among exhibitors and visitors at the Fair Grounds, this year the Committee planned a campaign of publicity to insure a health clientele that would keep busy the medical staff. At the suggestion of Dr. Reik, the chairman of the Committee obtained from the Metropolitan Life Insurance Company the film, "Working for Dear Life," for which the following trailer was provided:

"Have a Health Examination under the auspices of the Atlantic County Medical Society at the Atlantic County Fair in Egg Harbor City, September 14-15-16-17, 1927. Register for this free service at your nearest Red Cross Nursing office and at the Public Health Building on the Fair Grounds."

The film was shown during the week preceding the Fair in the county towns, Mays Landing, Hammonton, Pleasantville and Egg Harbor City; the estimated attendance at these showings being 2300. It was also suggested to Dr. Frankel, of the Metropolitan Life Insurance Company, that every M. L. I. policy holder in the county should be notified of these examinations. The District Metropolitan Life Insurance Company Superintendent was authorized to have flyers printed, and about 5000 of these were delivered by the insurance agents. In addition to these measures flyers were given to visitors by the ticket seller at the entrance to the Fair Grounds and considerable publicity was given in the newspapers. The County Public Health Nurses also brought in subjects for examinations.

The propaganda for periodic health examinations seems to be having some effect. It was far less difficult to obtain clients this year than 3 years ago. Of the 63 examined, not more than 15 were personally solicited or persuaded, the remaining 48 examined and the 25 or 30 (a most conservative estimate) who could not be examined for lack of time, must have come voluntarily on learning of the examinations through some one of the advertising mediums—movies, flyers or newspapers.

The whole experience of the health examinations conducted as they have been under circumstances and surroundings very far from ideal has been gratifying and satisfying from many standpoints.

The unofficial health workers who are anxious to coöperate in spreading the gospel of health, are gratified and deeply appreciative of the unselfishness and generosity of the members of the medical profession who gave so much of their time and of themselves to a labor of love—to what was an experiment 2 years ago, but now has emerged from that difficult experimental stage and has proven to be worth while.

From the standpoint of the doctor, the official health worker, ever fighting disease to promote health, the opportunity to preach the doctrine of health through health examination is equally as gratifying and satisfying, for having the vision to see future results they worked without complaint under difficult conditions.

The Committee is already planning for next

year, enlarged quarters, more examiners, more nurses and more health clients converted to Periodic Health Examinations, in addition to our 63 satisfied clients of 1927.

COUNTY FAIR, SEPT. 14-17, 1927.  
EGG HARBOR, NEW JERSEY

Physical Examinations under direction of Atlantic County Medical Society.  
Examining Physicians

C. M. Fish, M. D., Pleasantville, N. J., Chairman of Committee from the County Medical Society; Myrtle Frank, M. D., Egg Harbor City, N. J.; L. A. Wilson, M. D., Absecon, N. J.; C. D. Sinkinson, M. D., Atlantic City, N. J.; G. A. Poland, M. D., Pleasantville, N. J.; Cohen, M. D., Atlantic City Hospital; John S. Irvin, M. D., Atlantic City, N. J.; W. D. Olmstead, M. D., Atlantic City, N. J.; Mrs. E. G. Shreve, Chairman Public Health Committee of the Atlantic County Fair Association.

Examined

Women .....	38
Men .....	25
Total .....	63

Decades represented

First .....	0
Second .....	4
Third .....	12
Fourth .....	22
Fifth .....	8
Sixth .....	13
Seventh .....	3
? .....	1
	63

How recommended

Mrs. Shreve .....	5
Red Cross Nurse .....	9
Advertisement .....	1
Metropolitan Agent .....	1
Private persons who had previously been examined .....	5
Number who could not be examined due to lack of time, etc. ....	25
Number of different towns represented .....	20
Number of different family physicians represented .....	32
Number reporting "No Family Physician" .....	11

Examining Personnel

Physicians in attendance .....	8
Dentists in attendance .....	8
Nurses assisting .....	13
Other workers .....	16
	45

Metropolitan Life Insurance Company film, "Working for Dear Life," shown to 300-400 people in Public Health Building.

Defects Among 63 Adults

Nasal

Enlarged inferior turbinates ...	2
Deviated septum .....	10
Perforated septum .....	1
Removal of turbinates .....	1

Aural

Cerumen in one or both ears....	10
Inflamed left ear .....	1
Perforation of left drum .....	1
	—
	12— 9.9%

Optical

Totally blind .....	1
Conjunctivitis .....	1
	—
	2— 1.6%

Oral

Tonsils, small .....	1
“ infected .....	7
“ cryptic .....	7
“ hypertrophied .....	2
“ submerged, ragged ....	4
Graphic tongue .....	1
Inflamed throat .....	2
Pharyngitis .....	5
Blebs on pharynx .....	1
Caries of teeth .....	1
	—
	31—25.6%

Pulmonary

Apex questionable .....	7
Fibrosis of lung .....	4
Superficial veins, ant. chest ...	1
Bronchitis .....	3
Pleural adhesions .....	1
Hay-Fever .....	2
“Cog-wheel” breathing .....	1
	—
	19—15.7%

No lung examinations .....

3

Cardiac

Cardiac region enlarged .....	8
Mitral murmur .....	4
Myocarditis .....	4
Weak myocardium .....	1
Myocardial changes .....	1
Aortic dilatation .....	1
Cardiac dilatation .....	2
Fatty degeneration .....	1
Low blood pressure .....	7
High blood pressure .....	2
	—
	31—25.6%

Glands

Diminished ovarian secretion ...	1
Endocrine deficiency .....	1
Enlarged peribronchial glands ..	1
Enlarged peritrochlear glands ..	1
Enlarged bronchial glands .....	1
Gonad adiposity .....	2
	—
	7— 5.7%

Abdominal

General visceral ptosis .....	1
Polypoid growth of bladder....	1
Enl. rt. lobe of liver .....	1
Chronic appendicitis .....	1
Spleen palpable .....	1
	—
	5— 4.1%

Total Defects .....

121—99.7%

Different Cities represented

Egg Harbor .....	20
Newark .....	2
Mays Landing .....	3
Vineland .....	2
Linwood .....	1
Atlantic City .....	5

Hammonton .....	9
Pleasantville .....	7
New York City .....	1
Elmer .....	1
Woodbury .....	2
Mauricetown .....	1
Earlton .....	1
Folsom .....	1
Bridgeton .....	1
Williamstown .....	1
Ventnor .....	2
Hadden Heights .....	1
Margate .....	1
Collinswood .....	1

20 Towns represented by.....63 Ad'ts

Family Physicians

McIntyre, Philadelphia
Lundblat, East Orange
Taylor, North Haven, Conn.
Weithaase, Vineland
Townsend, Atlantic City
Porter, Pottstown, Pa.
Bellevue Clinic, N. Y.
Bramble, Elmer
Sickle, Woodbury
Sharp, Port Norris
Nicholson, Haddonfield
Conklin, Newark
Thomas, Vineland
Diverty, Woodbury
Simkins, Bridgeton
Fooder, Williamstown
Kuhle, Trenton
Jones, Philadelphia
Phillip, Collingswood
Fish, Pleasantville
Grier, Pleasantville
Carrington, Atlantic City
Ireland, Atlantic City
Steelman, Linwood
Britton, Mays Landing
James, Mays Landing
Boysen, Egg Harbor
Frank, Egg Harbor
Burt, Hammonton
Bitler, Hammonton
Esposito, Hammonton

Other P. H. Activities

Number of Dental examinations	197
Number of Babies weighed .....	256
Number of Children weighed ...	562

The Woman's Auxiliary

Progress with organization of auxiliaries to our county medical societies continues apace; 2 new groups having been formed during November—in Passaic and Ocean counties—bringing the total up to 16. As previously reported, Middlesex and Warren county medical societies have both authorized organization of auxiliaries, and these will be formed just as soon as the Executive Secretary of the State Society can effect satisfactory arrangements. It is hoped that Hunterdon, Morris and Sussex county physicians will endorse the movement in the near future.

The formation of auxiliary societies is a movement bound to succeed, and one to which every physician and every physician's wife should give active support. Mrs. S. A. Collom, E-President of the Woman's Auxiliary to the Texas



State Medical Society, answering the question—"Why a medical auxiliary?"—gave the following reasons:

"There is no other organization besides the Woman's Auxiliary that has the good of the physician and surgeon at heart. Our husbands are making the standards of their profession higher each year, and the wives' particular part is to help through the auxiliary; where we should be of great power, behind the throne, to disseminate the knowledge the public is demanding. The intelligent general public demands higher standards from its doctors than ever before, and it has a right to.

"In all worth while club work there are doctors' wives as leaders. Why not use our auxiliaries as a means of promoting this work and let the credit be placed where it belongs? It has been through the keen and eager interest in health matters taken by Women's Clubs and the Mothers' Congress and Parent-Teacher Association workers, and the splendid service they are giving in support of public health movements and measures, that the average head of a family today is quite capable of appreciating and grasping the explanations of the medical profession, and is worthy to be taken into the confidence of his physician. So important is this personal teaching that our national and state governments go to great expense to print valuable pamphlets on public health, supporting the doctor in his personal work."

Bearing upon the same question, we have abstracted the following from an address by Mrs. G. T. McDowall, of Gladbrook, Iowa, as published in the April issue of the Journal of the Iowa State Medical Society.

"She (the physician's wife) can be a help by keeping herself posted on the sickness and diseases that are prevalent; as to how they are contagious, and how persons may be immunized against such diseases—for example, diphtheria and typhoid. \* \* \* \* She must keep up-to-date in current events, as well as health and hygiene, in order to meet on equal footing the better class of people with whom she comes in contact. \* \* \* \* The doctor's wife should be a part of the community in which she lives; take part in all movements for improvement and betterment of the community, as any up-to-date business man's wife does. She should remember that, as the doctor is a public servant, so is she. \* \* \* \* I believe this poem by Isabelle Collins describes the life of a country doctor's wife much better than I can do:

SOLILIOQUY OF A DOCTOR'S WIFE  
(With apologies to Edgar Allen Poe)

Once upon a midnight dreary,  
As I wakened, weak and weary,  
To answer for the hundreth time,  
The telephone's insistent call—  
As I paced the floor, so cold,  
And replied in accents bold,  
"He's almost there, I'm sure",  
Though he hadn't left the hall.

I wondered whether Aaiden,  
With its restful visions laden,  
Would have a place apart  
For the doctor's weary wife.  
Where no fib she'd have to tell,  
Where there wouldn't be a bell,  
Where there'd be no patients rude,  
Stirring up eternal strife.

Where no voice, so cold and distant,  
Could answer her insistent,  
"What name shall I tell him?"  
With insulting "Never mind".  
Where she could dine without a fear  
That her company would hear,  
"Hello! Just give her a cathartic  
That'll fix her up you'll find".

Where she could go to the theater,  
And a little supper later,  
Without being interrupted  
By that everlasting call—  
"Telephone for Dr. Brown"—  
To the other end of town  
And he'd not get back till midnight,  
If he's back that night at all.

So if within this distant Aaiden,  
With its restful visions laden,  
There's respite and nepenthe  
From the telephonic bore.  
Let me haste on wings of light—  
But a still voice gives me fright  
As it whispers grim and low,  
"You're its slave forevermore."

Several of our county auxiliaries have gotten down to active work this autumn, and while it will probably take a long time, possibly a year or more, to develop the proper stride for all these organizations, we are gratified to report a growing interest in the work. Doubt has been expressed in some quarters as to whether there is any real work for an auxiliary; to which we reply that there is not a single county medical society in this state that cannot find work for an auxiliary, if its members wish to do so, and not a single society that can not be benefited by the aid and support to be derived from an active auxiliary. The Executive Secretary and his assistant will welcome any opportunity to discuss this matter with the auxiliaries or the county societies. Any auxiliary that has not yet arranged a definite program for its next meeting might do well to give one of us an invitation to speak.

A very timely suggestion, made by Mrs. Dan Renner, and which is worthy of the attention of every auxiliary president, is that in each county group a special committee be appointed to enroll, if possible, every eligible woman in the county.

Mrs. George A. Rogers, of Newark, and the Editor have been trying to secure information concerning recent activities of the several organized auxiliaries, and together can report as follows:

Atlantic County

Reported by Mrs. E. H. Harvey

This auxiliary holds meetings at the Chalfonte Hotel, Atlantic City, on the same day selected by the county medical society—the second Friday of each month. On November 11, their business session was followed by a bridge party.

Bergen County

Reported by Mrs. Joseph R. Morrow

The regular monthly meeting of the Woman's Auxiliary to the Bergen County Medical Society was held at the Hackensack Hospital on Tuesday afternoon, November 8, 1927, with Mrs. Edward Clarke, President, in the chair. After a short business meeting, and in response to a request

made by Mrs. Clarke to the Bergen County Medical Society as to the methods by which the woman's auxiliary could be more helpful. Drs. Joseph Payne and Joseph R. Morrow, representing the Welfare Committee, spoke briefly and expressed the hope that through the individual efforts of members of the auxiliary, attendance at the county medical society meetings could be increased; and in the eventuality of a permanent home for the State Society, the woman's auxiliary could be of great assistance.

The meeting closed with a social hour, tea being served by the Hospitality Committee.

#### Cumberland County

Reported by Mrs. Sherman Garrison

The next meeting is scheduled for January, and it is planned to have Mrs. E. C. Taneyhill deliver one of her public health talks to the auxiliary, and later, on February 27, to address the Bridgeton Civic Club upon the subject of "Periodic Health Examinations." A large majority of the eligibles in this county have already been enrolled in the auxiliary.

#### Essex County

Reported by Mrs. George Rogers

This auxiliary now has listed 160 members, and will meet on the fourth Monday of every month. The October meeting, first of this season, happened upon a very stormy day but in spite of adverse weather, attendance was excellent. After a short business session, Mrs. Lydia Hauck gave an interesting and instructive talk upon the care given by the local welfare organization to girls in the employ of the Telephone Company.

#### Gloucester County

Reported by Mrs. James Hunter, Jr.

A meeting of the Woman's Auxiliary to the Gloucester County Medical Society was held at the Woodbury Country Club on Thursday, October 20, at 3 p. m., under the presidency of Mrs. James Hunter.

The members present were: Mrs. Duncan Campbell, Mrs. William Brewer, Mrs. J. Harris Underwood, Mrs. Oram Kline, Mrs. David Brewer, Mrs. Harry L. Sickel and Mrs. Henry B. Diverty, of Woodbury; Mrs. Luther M. Halsey, Williamstown; Mrs. Chester I. Ulmer, Gibbstown; Mrs. Wilson Stout, Wenonah; Mrs. Elwood E. Downs, Swedesboro; Mrs. James Hunter, Westville. Visitor, Mrs. David Roe, Nampa, Idaho—a very fine attendance for such a stormy day.

The following speakers addressed the meeting: Mrs. J. Newton Hunsberger, Ex-President of Pennsylvania Auxiliary; Mrs. A. Haines Lipincott, President of New Jersey Auxiliary; Mrs. E. C. Taneyhill, Assistant Educational Secretary to Dr. Henry O. Reik, Editor of the Journal of the Medical Society of New Jersey.

Each of these women gave interesting talks on their line of work, telling of ways in which an auxiliary can be of service in aiding the medical men in their professional work.

A delightful social hour followed. Tea was served. Mrs. Duncan Campbell, Chairman of Entertainment Committee, acted as hostess, assisted by Mrs. Luther M. Halsey and Mrs. William Brewer.

In an effort to secure enrollment of all the eligibles in the county, this group has succeeded to the extent of having elected 24 members; whereas the county medical society has only 29 members. As not every physician in the county is blessed with a wife, it is interesting to note that the auxiliary membership embraces 2 daughters of members and 5 widows of former members of the county society.

#### Hudson County

Reported by Mrs. D. T. Winter

Meetings are scheduled for the first Tuesday of each month, though it has not yet been definitely decided where these will be generally held.

#### Passaic County

Reported by Mrs. James R. Lomauro

In response to an invitation extended by the Passaic County Medical Society, a number of the wives of members of that society met at the Health Center Building in Paterson on the evening of November 10 to organize a Woman's Auxiliary. Mrs. Elias J. Marsh, of Paterson, and Mrs. James R. Lomauro, of Passaic, were elected to the positions of temporary president and secretary, respectively.

Dr. Henry O. Reik addressed the meeting upon the subject of "Auxiliaries to Medical Societies" and aided in the work of formally organizing an auxiliary to the local county society.

After adoption of the proposed Constitution and By-Laws, it was decided that in view of the comparatively small attendance, election of permanent officers should be deferred until the December meeting, and a Nominating Committee of 5 members was appointed to recommend a list of officers for election at the next meeting.

A resolution was adopted making the wife of each member of the Passaic County Medical Society a charter member of this auxiliary, and the secretary was instructed to so inform them.

At the close of the session, the ladies joined their relatives of the County Medical Society in the enjoyment of "refreshments."

#### Somerset County

Reported by Mrs. Dan S. Renner

The Woman's Auxiliary to the Somerset County Medical Society held its regular meeting, October 13, at the Raritan Valley Country Club. In the absence of the President and First Vice-President, Mrs. E. G. Brittain, Second Vice-President, conducted the meeting. After transacting the routine business, the auxiliary joined with the Medical Society in their annual banquet.

Dr. Renner, the President, acted as toastmaster, and after the delicious dinner had been enjoyed, introduced Dr. Conaway, President of the State Society; Dr. Morrison, Recording Secretary; and Dr. Reik, Editor of the Journal, each of whom delivered an appropriate talk.

Mrs. Edgar Flint, of Raritan, was elected Treasurer, to fill vacancy caused by the inability of Mrs. Cooper to serve.

#### Union County

Reported by Mrs. H. V. Hubbard

The Woman's Auxiliary to the Union County Medical Society was organized April 13, 1927. Since then meetings have been held quarterly,



concurrently with the Union County Medical Society.

The first annual meeting was held at the same time and place as the annual meeting of the Union County Medical Society—the Echo Lake Country Club House—on October 13, 1927. The officers, as listed in the November issue of the New Jersey State Medical Journal, were elected.

After the business session of the annual meeting Mrs. E. C. Taneyhill, Assistant Educational Secretary, gave an address on "Periodic Health Examinations." The members seemed to be very much interested in her remarks.

## County Society Reports

### ATLANTIC COUNTY

Harold S. Davidson, M. D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was called to order by the President, Dr. Charles B. Kaighn, on Friday evening, November 11, 1927, at 8:30 o'clock.

Minutes of the previous meeting were read and approved.

Applications for membership from Drs. Roland T. Heelebranth, Maurice Chesler and Charles Hyman were referred to the Board of Censors.

It was moved and seconded that this County Society instruct its representative on the Welfare Committee to approve of annual registration of physicians, and this resolution was adopted.

A letter from Dr. West, secretary of the American Medical Association was read, stating that he would like to have this county society make Dr. W. M. L. Copeland an honorary member so as to give him the proper standing in the National Association. It was moved and seconded and Dr. Copeland was elected an honorary member.

A resolution was read from the city of Ocean City thanking the Atlantic City physicians for their help on occasion of the recent fire.

The following were nominated and elected for offices for the ensuing year: President, Wm. C. Westcott; Vice-President, J. H. Mason; Secretary, Jos. Marcus; Reporter, Harold S. Davidson; Board of Censors, Clarence L. Andrews; Annual delegates, R. M. Greer, Samuel Salasin, C. L. Madden, Hilton Reed and P. Marvel, Jr.; Alternate delegates, Bernard Crane, Daniel C. Reyner, John S. Irvin, R. E. Durham and Theo. Boysen.

Attorney Wm. Elmer Brown, Atlantic City, N. J., presented a paper on "Medical Expert Testimony." (To be published in full in a later number of the Journal.) Dr. Charles L. Scudder, Assistant Professor of Surgery, Medical School of Harvard University, presented a paper on "Certain Important but Unemphasized Facts in the Treatment of Fractures," establishing the following points: Industry today makes fractures of the greatest importance and of monetary value. Treatment of fractures can never be standardized. The injured individual has a right to know what to expect from any given injury. We must be able to tell him the probable outcome and the probable length of time of his disability. There are some 200,000 fractures in the United States yearly and most of these are cared for by general practitioners.

Bone is not the dry and inert substance we are apt to think it and is more than a simple framework. It is a most sensitive tissue, very sensitive to infection and to trauma. The reaction of trauma is influenced greatly by ignorant manipulation and must be handled most carefully. The operative treatment of fractures is in many instances the safest and sanest. Although most fractures can be treated without operation, operative measures often result in least trauma. The ideal is to fix a fracture in such a way as not to interfere with the function of an extremity. There should be no such thing as "after-treatment."

All fractures should be treated as emergencies and someone should be on duty to meet these cases. Fractures early seen may be easily reduced, which later, after swelling occurs, may be impossible to reduce. Every physician should have Thomas splints on hand at all times.

Skeletal traction by pins and caliper is a direct bony traction and is an efficient method. It is a major operation and should be done only by those skilled in major surgery.

Fractures of os calcis are very disabling; the old methods are inadequate. Whenever the fracture enters the astragalocalcaneal joint there should be made an immediate arthrodesis of the joint.

In fracture of the hip, the Whitman position of hyperextension, internal rotation and abduction, is the best method in use. Cotton artificially impacts the fragments. The Whitman reconstruction operation removes the head of the bone with many very excellent results.

Fracture of the patella is now treated with fascial suture and often you can get motion within a week without disturbing the fractured part.

Fracture of the lower-third of the leg is the hardest of all to treat and now most everyone agrees that it should have an open operation.

### Discussion

Dr. Arthur J. Davidson, Jefferson Hospital, Philadelphia, opened the discussion and stated that the economic standpoint cannot be too strongly stressed, and, if the patient is made to understand at the outset about what the result will be, much trouble will be saved later on. The orthopedist sees the fracture that cannot be satisfactorily reduced without operation. Incision can do little harm. Open operation assures accurate approximation and the end-result is better.

Dr. Theodore Senseman, Atlantic City, stated that passive motion should never produce pain. Slight motion is all that is desired. Always leave any part out of the dressing that does not need to be included; long continued immobilization is wrong.

Dr. T. D. Taggart, Atlantic City, said that we should try first to approximate the fragments and put on a cast in neutral muscle pull. The external application will in most places hold the bone in place.

### General Staff Atlantic City Hospital

Joseph H. Marcus, M. D., Reporter

The stated monthly meeting of the General Staff of the Atlantic City Hospital was held in the Nurses' Auditorium November 13, 1927, and was called to order at 8:30 p. m. by Dr. Wm. J. Carrington, president.

The following program was presented:

Melanotic Sarcoma, Dr. Marcus Magill; Roentgenologic Service of Dr. W. P. Davis, by Dr. Chas. B. Kaighn; An Unusual Case of Appendicitis, Dr. Leslie Sycamore.

Dr. Leslie Sycamore, Resident Physician, presented the following case reports:

Case 1.—H. H., a 16-year-old white boy, came to the hospital September 15, complaining of abdominal pain. Family history was negative and past history irrelevant. Present illness began 3 days before admission, with colicky abdominal pain. His appetite had been poor during the period of this illness and he had been nauseated on one occasion but had not vomited; no constipation or diarrhea; no symptoms referable to the genito-urinary tract.

Physical examination was negative except for the abdominal findings. There was tenderness over the region of the right kidney, and slight tenderness over the appendix. No muscular spasm or rigidity present and no masses could be palpated. Temperature 102°, pulse 106, and respirations 20; leukocytes 16,150, polynuclears 85%, lymphocytes 12%; 50 mgm. albumin, 2 to 3 hyaline casts and 5-7 leukocytes per field.

Diagnosis of acute pyelitis was made and the patient treated accordingly. His temperature fluctuated between 100° and 102° and the leukocyte count rose to 21,450 with 85% polys 4 days after admission. Urinalyses showed no change in the urinary picture. Widal and Wassermann tests, and blood culture were all negative.

Cystoscopy was performed 5 days after admission. A mild trigonitis was found in the bladder. Radiographic catheters being inserted in the ureters and x-ray pictures taken, the roentgenologist's reports was as follows: "Films of the right ureter with the opaque catheter in place show nothing unusual. Injection of the kidney pelvis (with sodium iodide shows the pelvis to be normal in shape and size, with slight flattening of the upper calyx. Request that this patient be returned for further examination because of the fact that just above the crest of the ilium a pin is seen, around the head of which appears to be a concretion. It may have been either in the covering or in the patient himself and for this reason the re-examination is asked for." Before any further steps could be taken, however, the patient's mother signed a release and took him to a hospital in a nearby city. A letter received a few days later from the chief resident of that institution stated that the patient had been operated upon, and a post-cecal abscess found in which there were the remains of a ruptured appendix, with a pin in the appendix.

This case is of interest because of the unusual nature of the foreign body found in the appendix, and also because of the length of time, as evidenced by the formation of concretions around the pin head, that it must have been there without causing symptoms.

Case 2.—Adult male, with family and personal histories essentially negative except for influenza in 1918, with a complete uneventful recovery. On November 6, the patient complained of severe pain in the right lower abdominal quadrant, starting in the afternoon and followed by vomiting that same evening. On the following 2 days, November 7 and 8, the patient again vomited intermittently, while the pain was less severe. On November 9, the pain became severe and more localized in the right lower abdominal quadrant and patient complained of a slight amount of tenderness.

Physical examination on the ninth disclosed the following salient features: Slight rigidity of the right rectus muscle with moderate tenderness in the right lower quadrant; patient was fairly comfortable; temperature 99.1°; pulse 84; respiration 20; erythrocytes 4,660,000; leukocytes 8250; hemoglobin 85%; color index 0.84; polymorphonuclears 79%; small lymphocytes 21%; no abnormal leukocytes or erythrocytes found. The diagnosis of acute appendicitis was made by Dr. Theodore Senseman, and the patient was immediately submitted to operation. Some difficulty was experienced in finding the appendix, due to invagination into the cecum, the immediate areas being more or less bound by adhesions; the cecum in the immediate vicinity of the appendix was gangrenous. Dr. Senseman performed resection of the terminal end of the cecum, including the appendix. The following pathologic report was made by Dr. Robert A. Kilduffe, director of the laboratories: "Specimen of an appendix 12 cm. in length and 3 cm. in width at the proximal end. The distal portion measures 3.5 cm. and is intussuscepted into a portion of the intestine for a distance of 4 cm. The appendix is the site of a diffuse acute inflammatory process, the intestine is strangulated and shows beginning gangrene." At the time of this report, which is nine days following day of operation, the patient was making rapid and uneventful convalescence. The pathologic specimen of this case was presented.

Dr. Charles P. Kaighn, roentgenologist, in reporting the service of the first 6 months of 1927, presented a statistical report of the total number of cases submitted for roentgenographic examination, which number totaled 1200; he also presented a divisional report of the different types of roentgenograms requested and made. Dr. Kaighn then presented a series of roentgenograms in which he ably and clearly demonstrated the necessity for close and thorough observation of physical signs which were not demonstrable in clinical or physical examinations. He urged a more thorough and freer use of this aid in diagnosis, and advised a more thorough examination of the chest in suspicious cases when operative procedures are to be instituted. This was a valued demonstration and emphasized the precise signification of roentgenographic examinations in certain types of cases before employing surgical intervention.

Dr. C. Coulter Charlton, discussing "Electrocoagulation of the Tonsils," stated that in certain selected cases this method was preferable to removal under general anesthesia; his method of choice is the interrupted procedure entailing 2 or 3 applications for each tonsil, feeling that this procedure minimizes the possibility of harmful results as experienced by certain operators who perform this electrocoagulation at one sitting. Dr. Charlton uses at times local anesthesia of the pharynx and adjacent tissues in order to prevent excessive gagging and finds this method of tonsil elimination of extreme advantage in certain cases of heart disorders, pulmonary tuberculosis, diabetes and other serious diseases.

Dr. Charles Sinkinson cited a case in which the tonsils were subjected to electrocoagulation in an adult female who journeyed to an adjacent city, being subjected to one prolonged and interrupted treatment. The patient returned the same day of the operation with a temperature of 104°.

Dr. P. Marvel, Jr., continued the discussion



by stating that on being called to attend this patient he found, on examination, an embolus situated in the left leg, accompanied by symptoms suggesting a toxic edema of the brain or an encephalitis. This patient's condition, Dr. Marvel maintained, was directly attributable to the massive dose of electrocoagulation.

Dr. D. Ward Scanlan emphasized the importance of careful physical examination of the lungs before any operation under general anesthesia, as it is a simple procedure to convert a latent tuberculosis into an active condition. Furthermore, a competent examination cannot be a hurried one; the importance of a family history and a personal history of the patient are both essential and a roentgenographic examination of the chest ought to be made in all suspicious cases.

Dr. Magill presented the following case: Patient, J. M., age 66 years, male, single. Parents both dead, cause unknown. Personal and family histories negative. Present illness: Patient came to the hospital complaining of a growth on his back and stating that during the past year he had been losing weight and growing weaker; appetite poor for the past few months, with some pyrosis accompanied by a sense of weight and fullness in the right upper quadrant, and constipation. No symptoms referable to the respiratory or genito-urinary tracts. Neurologic symptoms absent. Physical examination: Face and hands slightly cyanosed; slight jaundice of the eyes; lips and mucous membranes of the mouth somewhat cyanosed; most of the teeth absent, the remainder in very poor condition; tongue slightly coated; slight post-cervical adenopathy; the chest long and phthisical in character, with acute epigastric angle. Over the ninth and tenth dorsal vertebrae there protruded a large pedunculated, cauliflower-like bluish black growth, which was soft and bled easily when traumatized. The patient stated that this growth had been present during his entire life but commenced recently to enlarge. In the left axilla was a group of fused conglomerate nodes. Over the entire abdomen could be seen small, discrete bluish black masses which were felt to be in the subcutaneous areolar connective tissue. The lower edge of the liver extended about 3 in. below the costal margin; this contour being irregular and knobby. After admission, the growth was excised, mercurochrome applied, and the site of excision was dressed daily but showed a slow tendency to heal. Following operation, the patient continued to complain of weakness, loss of strength and poor appetite. Symptomatic treatment was given together with exposure to x-rays. Condition did not improve. Blood examination revealed a marked secondary anemia. Other laboratory procedures were negative. The liver continued to enlarge and 3 weeks later the patient developed convulsions and died. The pre-operative diagnosis of melanotic sarcoma with metastasis was verified at autopsy and by sections of the tissue removed. Small discrete bluish black nodules were found in the subcutaneous tissues of the abdomen and chest, also in the spleen, liver, dura and brain.

Dr. Magill, in summarizing, stated that melanotic sarcomas are classified by some as not being truly sarcomatous, since they arise by atypical proliferation of the chromatophore cells in the skin, or of similar cells in the uveal tract of the eye. Beginning in the eye, or in a cutaneous nevus, they metastasize rapidly to the skin

and internal organs by both the blood and lymph streams. The prognosis is very grave. Treatment consists in prompt extirpation of the tumor before metastasis has occurred, if possible, or x-ray therapy and Coley's Fluid, but satisfactory results have not as yet been achieved.

Dr. Samuel L. Salasin, health officer of Atlantic City, outlined in brief the present state-wide campaign which is being undertaken for active immunization against diphtheria; he stated that toxin-antitoxin can be obtained from the health department free of charge for administration to those patients who are unable to pay, asking in return the names and addresses of such patients.

Dr. Wm. J. C. Carrington lauded the present administration of the New Jersey State Medical Society, under the leadership of Dr. Walt P. Conaway, president, and urged all the members to give him their unstinted and zealous coöperation.

Dr. Robert Kilduffe, chairman of the publication committee, stated that all papers written by the staff were ready for publication and that the question of cost of publication would be investigated.

Dr. Clarence L. Andrews reported the mortalities with the accompanying necropsies for October.

Dr. Homer I. Silvers, chairman of the Intern Committee, related the existing difficulties between the states of New Jersey and Pennsylvania relative to the impediments experienced by interns in being unable to take the Pennsylvania state board examination. These obstructions are being overcome and current hindrances removed.

Dr. W. C. Wescott, in the absence of Dr. W. P. Conaway, Chairman of the Radium Fund Committee, reported the purchase of 150 mgm. of radium. A sincere and appreciative vote of thanks was extended to the Press Union Publishing Company of Atlantic City, through whose efforts the fund was so successfully raised.

## BERGEN COUNTY

Spencer Snedecor, M. D., Reporter

Regular monthly meeting was held at the Hackensack Hospital on November 8, Dr. George W. Finke presiding.

Dr. William Tomkins, of Ridgewood, was elected to membership.

Drs. Joseph Payne, of Midland Park, and Joseph R. Morrow, of Bergen Pines, representing the Welfare Committee, met with the Woman's Auxiliary in the afternoon and reported later that the ladies were only too anxious to be of help but wished the advice of the county society as to what they might do that would be of advantage to the profession. The doctors explained how their coöperation would aid the society meetings and welfare work.

Drs. Spencer T. Snedecor and Frank C. McCormack, as a special committee, reported progress in seeking a compensation referee for Bergen County.

The president ordered the nominating committee to report nominations of officers for the ensuing year at the next meeting.

Dr. Edward P. Essertier, of Hackensack, stated the program of the building committee looking toward procurement of a "Club House" for the county society. It seemed to him best to increase the proposed assessment from \$200

to \$300 to insure a larger initial cash payment and lower carrying charges. One of the real estate dealers has offered the home of Mr. George W. Mercer, of Hackensack, at a price of \$45,000. After considerable discussion the matter was layed over in deference to the scientific program.

Dr. K. Winfield Ney, Professor of Neurosurgery at the Polyclinic Hospital, spoke on "Diseases of the Central Nervous System with Increased Intracranial Pressure." Dr. Ney brought out many new adjuncts that have been developed to relieve intracranial pressure; an accurate method of determining intracranial pressure is by puncture of the posterior horn of the ventricle and attaching a manometer to the needle; early experiments showed that pressure on one jugular vein increased it 8 points; pressure on both jugulars raised it to 24; inhalation anesthesia was found to always raise the intracranial pressure to as high as 30 mm. Hg.

Dr. Ney reviewed the symptoms of pressure from the early irritative signs to the last stage of deep coma. Particular attention was paid to the methods of relief of intracranial pressure: (1) Dehydration by one of several methods; 25% sodium chloride intravenously; magnesium sulphate intravenously or by rectum; or if in shock, glucose intravenously is most valuable. (2) Spinal puncture. Dr. Ney believes this to be a most valuable procedure and that all the fluid that will run off should be withdrawn. (3) Decompression is a procedure indicated in certain cases.

In conclusion, Dr. Ney talked on the probable etiology of epilepsy as influenced by traumatic conditions, particularly birth injuries. In many cases of epilepsy increased intracranial pressure may be demonstrated.

### CAMDEN COUNTY

R. E. Schall, M. D., Reporter

The Camden County Medical Society held its regular monthly meeting on November 8, under the presidency of Dr. T. W. Madden. The program dealt with obstetric and gynecologic topics and papers were read by Drs. George B. German, Albert B. Davis, Gordon F. West and Thomas B. Lee.

### ESSEX COUNTY

Essex County Anatomical and Pathological Society

J. J. Connolly, M. D., Reporter

The first meeting of the season was held Thursday evening, October 27, at the Academy of Medicine, Newark. The President, Dr. Frank W. Pinneo, in presenting Dr. Martland to speak upon 2 topics, illustrated by specimens, called attention to the original work of Dr. Martland in these matters. One subject, "Strangulation," showed the significant difference in the pathology of "hanging," with its dislocation of the tongue, larynx, spinal vertebrae, and other parts, from that of "throttling," as in "garotting"; a difference noted hitherto only by Dr. Otto Schultze, of New York, and which can sometimes make the differential diagnosis in method of death a matter of medicolegal importance. The other topic presented by Dr. Martland was

"Cardiac Syphilis," on which he has done unique work, showing that its pathology is of the aorta, sinuses of Valsalva, and cusps, not of the myocardium.

Dr. Cassilli spoke on "Outstanding Features of Pernicious Anemia," and Dr. Rudolph Scharf, of the Psychiatric Institute, Morristown, read an interesting paper on "The Pathologic Conception of Kidney Disease and its Experimental Production in Animals." Dr. Lowrey presented a patient with a probable "Arteriovenous Aneurism of the Brachial Artery," caused by a sharp bit of steel which x-rays clearly revealed. The physical signs, with bruit and systolic blowing murmur, were very interesting.

### November Meeting

On Thursday evening, November 17, this society again met, and the auditorium of the Academy of Medicine was filled with an unusually large attendance. The topic of the evening was "Bone Tumors," and 2 visiting speakers from New York, Dr. William C. Clarke and Dr. Frederic W. Bancroft, presented the topic with an array of x-ray and other pictures gathered from 4 of the great New York hospitals and coverings over 250,000 cases of disease, among which were 209 such tumors as they discussed. Dr. Pinneo, introducing the speakers, said the subject was timely, because of publication of an analysis of the cases collected in the "Registry of Bone Sarcoma," of the American College of Surgeons, and because of the outstanding importance of practitioners generally knowing the later discovery of difference between malignant sarcomas and the nonmalignant "giant-celled tumor" with all it implies in diagnosis and course of the disease.

The appreciation and interest of the audience were manifested in the prolonged discussion which followed.

Announcement was made of the facilities for anatomic and surgical dissection which the society offers to members under its charter—the only one of its kind in the state.

### GLOUCESTER COUNTY

Henry P. Diverty, M. D., Reporter

The Gloucester County Medical Society met at the Underwood Hospital, Woodbury, New Jersey, October 27, as the guests of Dr. J. Harris Underwood. Addresses were delivered by Drs. John Kolmer and F. H. Weisenberg upon "The Pathology and Clinical Features of Anterior Poliomyelitis."

Dr. Weisenberg: The subject of infantile paralysis or acute poliomyelitis is a very interesting one because it is always present, and is not, as a rule, diagnosed early, as it should be.

In 1916, when the epidemic was at its height, with a group of about 10 assistants I studied all of the patients in the Municipal Hospital. We had the largest number of cases that has ever been collected under one roof—717. We used dictaphones at the bedside, and in this way permanent record was made of the progression of the disease and many interesting observations were recorded which would have been missed by any other method.

Of these cases, 338 were males and 329 females. There were 18 colored patients. The previous state of health made no difference as to the onset. The most striking fact as regards the paralytic symptoms was that all had a



temperature, ranging from 99° to 103°, and, in one or two instances reaching 105°. The pluse and respiration were in accord with the fever, which lasted 5 or 6 days and in most of the nonfatal cases the temperatures reached normal by gradual decline on the sixth or seventh day of the disease. In a few instances the fever ran only 4 or 5 days, but the average of the 717 cases was 6 days. Nausea and vomiting were observed in 260 cases, constipation in 194 and diarrhea in 49. The ages ran from 2 months up to 6 years; 37 out of the 717 were under 6 months; 49 of them were breast-fed, and of these 7 died.

Symptoms.—There were twitchings in parts or all of the limbs, restlessness, and, in a few, convulsions. Sore throat was noted in 20 cases, coryza in 12, cough in 14, and sneezing in 10. Practically all had stiffness of the head and neck, with pain on motion. There was also rigidity of the back muscles and often retraction of the head. General hyperesthesia was usually present. The reflexes were usually exaggerated. In other words, the preparalytic symptoms in most cases were those of meningeal irritation, and were indistinguishable from a true meningitis. In most instances, pain in the back of the head and neck with an accompanying rigidity came on about the same time that the paralysis appeared. Often the pain preceded the paralysis. As a rule, it was possible in the early cases, even in the smallest children, to tell which limb was paralyzed by the fact that it was painful on manipulation. It was impossible to obtain a history of its onset in children, but in the majority of adults the pain came on after paralysis had set in. They described the pain as aching or sharp in character, the limbs being very tender to the slightest manipulation. In many instances the pain disappeared as quickly as it came; usually it lasted at least a week; in the majority of cases it would subside gradually and be entirely gone in about 4 weeks. I am convinced that this pain is not of neuritic but of meningeal origin, for as the meningeal symptoms disappeared the pains also gradually subsided. Another point in favor of this view is the rapid subsidence of pain after lumbar puncture. Every patient, on admission to the Municipal Hospital, was given a lumbar puncture, and punctures were repeated as occasion arose, according to the meningeal symptoms and the pain. Almost instantly, relief from pain and headache was obtained. In some of the cases observed very early, and in which lumbar puncture was done repeatedly, there was practically no pain. As a rule, on lumbar puncture the fluid comes drop by drop, whereas, in infantile paralysis the fluid is more likely to come out with a rush and under great pressure, the amount varying from 15 to as high as 50 or 60 c. c. In some instances, where lumbar puncture was done as often as every 6 hours, there would be 20 to 30 c. c. obtained each time. Where paralysis was chiefly confined to the lower limbs, the quantity of cerebrospinal fluid was greater than in the other types of paralysis. The majority of the cerebrospinal fluids were water-clear or showed but a faint opalescence against a black background; only 1% to 2% of blood-free fluids presented distinct turbidity. Xanthochromia and excessive fibrin formation were not found; about 10% of the fluids presented a small fibrin-coagulum after standing several hours. A definite and absolute diagnostic test with the

spinal fluid in poliomyelitis has not been discovered.

Extent of the paralysis.—In most cases, the paralysis involved more than one limb, the lower limbs much more frequently than the upper.

Types of paralysis.—There are several types of paralysis but the spinal form was by far the most common. This was especially true in the nonfatal cases. There is one essential difference between fatal and nonfatal spinal cases, and that is that in the former the chest is almost always implicated, death resulting from respiratory paralysis; whereas, in the nonfatal types the chest is less frequently affected. The Landry type is not so distinct and in many instances it is impossible to distinguish it from the spinal type; it is most common in fatal cases in which the paralysis progresses so rapidly that death occurs on the second or third day.

In the bulbar type of paralysis the symptoms consist in difficulty in swallowing, with regurgitation of food; no evidence of paralysis of the limbs, but increase of the reflexes because of the general meningeal involvement.

The pontine type of paralysis claimed 22 instances in which the facial nerve alone was involved.

Of the encephalitic type there were 4 fatal and 10 nonfatal cases. Usually the symptoms were preceded by convulsions followed by hemiplegia of the same side. The paralysis had the usual symptoms of a cerebral lesion.

Of the abortive type there were about 12 admitted, the symptoms consisting of the usual fever, vomiting, headache, constipation or diarrhea, followed by rigidity of the head and neck and occasionally of the back. Lumbar puncture always showed an increase in quantity of the cerebrospinal fluid with the usual findings. The fever never lasted more than 4 or 5 days, the pulse rate was never very great, and the respiratory rate was never increased. The whole course of the disease never lasted more than a few days and paralysis never followed.

My own views about the infection are as follows: When I first came to study these patients I put on a gown and face mask. In 2 or 3 days I discarded the face mask. During that entire epidemic, which lasted 3 months, there was not a single case of a nurse or an intern who got the disease, and there were other patients in the same wards who did not get the disease. I am rather skeptical of the contagiousness of it, though 1 example was furnished us in Chester County, near Philadelphia. There is in Cedar Hollow, a stone quarry in which Italians work. There is a row of 10 tenement houses in which about 60 Italians live, 40 of them children, most of them under 6 years of age. Two instances of the disease appeared about the same time in 2 families living in separate houses. There was also another case about ½ mile away in an Italian family. As is customary with these people, all of the other children and adults visited the sick children before the inspector had the opportunity to pronounce the disease poliomyelitis; indeed, he did not take the trouble to quarantine them because he knew the rules could not be enforced. Here was every opportunity for the disease to spread, and yet there were no other cases of the disease, not even abortive cases.

Treatment.—I believe the best way is to do as many lumbar punctures as are indicated for mechanical relief of pressure and for symptomatic

relief. For example, in a boy of 15, seen in the preparalytic stage with great stiffness of the neck, spinal tenderness and severe headache, following prompt lumbar puncture, where 50 c. c. was removed under great pressure, there was within 5 minutes a total relief of headache and rigidity of the neck, and these symptoms never recurred throughout the entire subsequent course of the illness. Whether or not the lumbar puncture has any value in lessening the ensuing paralysis I am unable to state. I do not believe it is of any value in the absence of pressure and meningitic symptoms. In other words, I do not believe it is of any value after the case has reached the stage of absent reflexes, flaccidity and paralysis. The persistence or recurrence of meningitic symptoms is an indication for its immediate and frequently repeated employment. Repeat lumbar punctures every day or so. From the orthopedic standpoint the very first thing after the lumbar puncture is to place the limb in a splint so as to prevent contracture, for if this is not done the normal muscles pull the paralyzed muscles out of shape. Early in the disease these patients do not allow themselves to be handled because they have a great deal of pain but as soon as the pain disappears, start massage and electric treatments.

*Dr. John Kohner:* Unquestionably, poliomyelitis is due to some type of organism but it cannot be said that the organism has been positively identified and described. There has been a great deal of investigation during the past 8 or 10 years. Fortunately, the monkey is very susceptible to the virus and the disease can be transmitted to this animal with great success. Various organisms have been described as the cause of this disease, the best known being the globoid bodies described by Flexner and Noguchi. This little organism has never been found in the spinal fluid nor in the blood but it has been found in cultures of brain and cord removed soon after death. In 1916, Dr. Heist and I succeeded in cultivating this organism. Rosenow, of the Mayo clinic, however, believes that a streptococcus may be the cause. We recovered these streptococci in as high as 40% of brain and cords secured at autopsy but we have never been able to produce the disease in the monkey with them. However, Dr. Rosenow is so convinced that the streptococci are important that he has inoculated horses with them and there is now a so-called poliomyelitis antistreptococcus serum available. Streptococci are apt to be found only in individuals who die in a late stage of the disease, and for this reason many look upon these streptococci as secondary invaders rather than the primary virus.

All of our information indicates that the poliomyelitis virus is transmissible through the upper respiratory tract. The nasal mucus from children suffering from this disease has successfully infected monkeys. The tonsils, also, may contain virus but it has never been found in the spinal fluid or the blood.

Poliomyelitis is either a rare disease or it is a very widespread disease. There is a tendency at present to look upon it as being as widely prevalent as is measles. According to this view, it is probable that the majority have the disease in an unrecognizable form, leaving them immune. It is stated that at least 60% of adults are immune and the blood serum of adults can be used for the treatment of poliomyelitis if the serum of a convalescent or recovered case is not obtainable. Enough laboratory work has

been done to demonstrate that a poliomyelitis immunity is widespread. There is, therefore, an opinion, which is gaining strength, that poliomyelitis is, as a rule, a widespread disease and that probably the majority of human adults have contracted it.

How the virus is transmitted from individual to individual is not known. The fly has been incriminated. Dr. Aycock, of Boston, has stated that milk may be a carrier of the virus. Pasteurization of milk, apparently, destroys the virus. Not infrequently the disease has broken out in private rather than in public schools. It is probable then that the virus of poliomyelitis is transmitted by droplet infection, that is, by sneezing and coughing. Since it has been demonstrated that the virus occurs in the nasal mucus, it is quite reasonable to assume that those coming in contact may get the virus in the upper respiratory tract. In times of epidemics we do well to keep children from the movies, from Sunday school and from school rooms until we know more about the mode of infection. The disease seems to be most infectious during the week preceding the development of paralysis and for a period of about 10 days after poliomyelitis is well developed. Two weeks after poliomyelitis is apparent, the infection, as far as the presence of the virus in the nasal mucus is concerned, has practically disappeared. It is most infectious during its early stages. This organism in the nose and throat probably produces a generalized infection but we are not able to recognize it in clear-cut symptoms except when the nervous system has been attacked. The virus, therefore, has a selective affinity for the brain, spinal cord and meninges and when it has reached these tissues the meninges show considerable hyperemia and infiltration. This contributes to the increase of spinal fluid. The next site of location is the posterior roots of the spinal nerves, which doubtless explains the pain and tenderness in the extremities. From this point, the disease penetrates the substance of the spinal cord involving both the white and gray matter, and particularly the cells of the anterior horns. These parts show hyperemia, a good deal of edema and some leukocytic infiltration. We do not find the virus regularly except in the brain and in the spinal cord but changes in the spinal fluid are more or less typical of the disease.

The physician need not hesitate about resorting to spinal puncture, from the standpoint of diagnosis. Carefully conducted spinal punctures are employed for therapeutic purposes and for laboratory examination of spinal fluid and should always be resorted to early. The fluid in a case of this disease is usually quite clear or shows but a faint opalescence against a dark background. Normal spinal fluid is always perfectly clear, like distilled water. If the fluid is opalescent, and blood not present, a pathologic condition is certain. The majority of fluids from all stages shows an increase of all cells; in 80% of these the counts are not above 100 cells per c. mm. of fluid. An increase of the total cells was found in the preparalytic stage, and this increase is present in 80 to 84% of cases for at least 2 weeks after onset of paralysis, when a decrease occurs. In over 95% of fluids the small lymphocyte variety of cell predominates. Polymorphonuclear cells predominate in less than 1% of fluids and in over 88% they constitute less than 25% of the cells present. As a general rule, the cell count has a moderate increase of



from 30 to 100; rarely does it ever occur up to 1000. Wassermann reactions are negative. During the acute stages the fluids of 40 to 50% of cases yielded a colloidal gold reaction of the luetic and meningitic types.

Sometimes difficulty arises in differential diagnosis from the ordinary form of meningitis. In tuberculous meningitis the fluid is clear but develops a coagulum; the cell count is higher; the protein greatly increased; the total chlorids decreased; and the bacillus may be found. In meningococcus, pneumococcus, streptococcus and influenzal meningitis the fluids are cloudy; the cell counts very high; polymorphonuclear cells greatly preponderate; protein is greatly increased; sugar is apt to be absent; chlorids are normal; and the specific organism is found in smears and cultures.

Coming to the question of treatment of this disease, I may state that the exact status of serum treatment is as yet undetermined. But this fact is well established, that the serum of an individual who has recovered from poliomyelitis is capable of destroying the virus in the test tube. This gives a logical, scientific basis for treatment of the disease with intraspinal and intravenous injections of convalescent human serum. The dosage for children between 3 and 5 years of age is 15 c.c. by intraspinal injection and 50 c.c. intravenously. The serum treatment of poliomyelitis is similar to the serum treatment of tetanus. The dose should be repeated at the end of 24 hours, and thereafter according to conditions. It is important to give the serum early. If we are confident that the poliomyelitis is not spreading we ordinarily do not give more than one injection. If spreading, do not hesitate to give a second intraspinal followed by another on the third day.

In procuring the serum, most convalescents and recovered patients will offer no objections if approached properly. Children of 10 years can easily spare 2 or 3 ounces of blood. The best serum is taken from those who have recovered from the disease most recently. It can be kept for at least 2 years if properly preserved.

We have nothing to offer in the way of prophylaxis. This serum has been too valuable to use for this purpose. But I may say that if you are called in to see one of a family of children, and the parents are anxious, you may give an injection of 5 c. c. subcutaneously for immunity, just as in dealing with measles.

Urotropin by mouth and intravenous injections of mercurochrome have been used, but, if any of these things are used, please do not inject them intraspinaly.

## HUDSON COUNTY

M. I. Marshak, M. D., Reporter.

The Hudson County Medical Society met at the Carteret Club, Jersey City, on November 1, 1927, with Dr. S. R. Woodruff presiding.

Dr. Foster Kennedy, of the Neurologic Institute of New York City, spoke on "Neuropsychology". His talk included a discussion of man as a power transformer, psycho-analysis, the powers of suggestion, the psychology of man going into battle, the neuroses and shell shock, and some of the mental diseases and psychoses. Dispersed throughout with case recollections to emphasize his points, and witticisms to relieve the tension

of his listeners, the rapid survey of his subject which took over an hour and a half to deliver, came to a close too quickly to suit the large audience present. Following are a few high lights jotted down by the reporter who was so interested in what was said he forgot to take full notes.

Dr. Kennedy looks upon men as temporal transformers of power, dependent on heredity and environment for their ability to transform power profitably. People concerned only with mental disease have forgotten the instrument, the brain. The diagnosis of mental diseases does not necessarily mean that the diseases are understood. They mean rather a classification of symptom complexes. Epidemic encephalitis is an organic disease with round cell infiltration in the subthalic area of the brain. It makes a man different as a personality; a slow, nontalkative man might become energetic and talkative, etc.

As we have other centers in the brain, so we have a center for emotional tone. Man is born in a certain emotional phase or is set to a special sympathetic tone. This tone being changed by some organic disease, as in encephalitis, a change in the emotional phase or set is produced. A great majority of the mental diseases are a change of feeling tone; either increased or diminished reactions producing excitement or depression.

Dr. Kennedy discussed Freud's attitude and disagreed with his fundamental precepts. People and thoughts cannot be categorically jacketed into this or that pigeon hole. Psycho-analysis is not a plumbing of mentality. It only suggests such a plumbing. It seems to give a plausible explanation of emotional conditions, but it does not really explain them; and it degrades the victim. Man is part brute and part angel, not all black nor all white, but a mixture of both, a sort of gray, or white splotted with black.

Neuroses in war times never occurred in the severely wounded. It was shown how the psychology of the man going into battle, the fight between self preservation and group or race preservation, with the added suggestions of those about him, eventually produced shell shock of various degrees with different types of paralyses and other symptoms. The shock was not due to concussion of the explosives but to psychologic effects. Shell shocked patients are not necessarily cowards. The same processes as in shell shock occur in industrial accidents. It is difficult at times to differentiate between these true shocks and malingering. Hysteria is an unconscious assumption of a disease picture, while malingering is a conscious assumption of a disease picture. One must not forget the machine that affects personality, or at least houses it, in studying neuropsychologic conditions.

Drs. Hasking, W. Friele, Londrigan and Dickinson took part in the discussion.

## Osler Clinical Society

M. I. Marshak, M. D., Reporter.

The Osler Clinical Society met at the Union League Club, Jersey City, November 16, with Dr. Miner presiding.

Dr. Cosgrove reported a case of "Pregnancy Complicated by Mitral Stenotic Heart Disease with Decompensation". These cases, he said, were poor risks for operative interference, especially if general anesthesia must be used. His

patient had an hysterotomy and double salpingotomy done under spinal anesthesia and made an uneventful recovery, with the heart condition considerably improved.

Dr. M. Shapiro reported a case of "Severe Mercurial Stomatitis" in which only 3 mercurial injections had been received during a course of treatment for syphilis. Necrosis of the right upper jaw, with sloughing of the tongue, was present. The treatment consisted of KI and catharsis internally, and the application of potassium permanganate solution 1:1000 locally; this gave favorable results.

Dr. Jaffin presented a case which had been diagnosed as "Pernicious Anemia", with weakness, abdominal pain and vomiting, and no hydrochloric acid in the gastric juice. He felt that the anemia might be caused by the patient's occupation, which was that of a painter. Blood count on September 17 showed 2,500,000 red cells with macrocytosis and stipling but no nucleated red cells, and 55% hemoglobin. On a diet of  $\frac{1}{2}$  lb. of liver and 2 lb. of potatoes a day, the patient began to improve and is now at work at his trade. On November 15, the blood showed 3,200,000 red cells with 70% hemoglobin. A discussion of the use of liver diet in anemia took place, Drs. Curtis, Bartone and H. Franklin taking part.

Dr. B. S. Pollak read the paper of the evening on "Pulmonary Hemorrhage". (This paper will be published in full in an early number of the Journal.)

Drs. Jaffin, Marshak, Curtis, Alexander, L. Koppel, Cosgrove, J. Koppel, Friele, Perlberg, Barishaw, Kelly, Sirkin, Waters, and Miner discussed the paper.

#### MERCER COUNTY

A. Dunbar Hutchinson, M. D., Reporter.

The Mercer County Medical Society held its Annual Banquet in the Carteret Club on November 10. The society was doubly honored with the presence of Drs. Walt P. Conaway, President, and J. Bennett Morrison, Recording Secretary, of the State Medical Society.

Following a very enjoyable repast, enlivened with music and the fluttering national colors, President Sill introduced Dr. Conaway who spoke in a very entertaining manner on the following subjects: Eradication of diphtheria in New Jersey; periodic health examination; annual registration of physicians; a home for the State Society; the woman's auxiliary to the county society; broadcasting for the State Society; Crippled Children Commission; section meetings at the annual convention; what is necessary to promote better attendance at the annual meetings. Dr. Conaway expressed a desire to receive any constructive criticism, closing his remarks with the earnest request for a more determined effort on the part of members to further the cause of preventive medicine.

Dr. Morrison most ably and concisely treated the several subjects upon which he chose to speak: Reference to the printing and reading of the Society Transactions; an appeal for a larger membership, stating that there are at least 3600 physicians in New Jersey that are not members; work of the Tristate Medical Conference; annual registration; amending of the Constitution and By-Laws of the State Society; medical economics,

fees and the reporting of irregular practitioners; committee on new membership; public relations. The sincerity with which Dr. Morrison approached his hearers, left a profound impression that merited the commendatory remarks that followed.

The resignation of Drs. C. G. Guthrie and Thomas Alsop, who are leaving the state, were read and accepted. The applications for membership of Drs. Summers, MacDonald, Bearisto, Ashley, Ivins, Rogers and Mason were read and referred to the Membership Committee.

The following amendment to the By-Laws was offered: "That after December 1, 1927, all associate members pay annual dues of \$5."

#### MONMOUTH COUNTY

F. J. Altschul, M. D., Reporter

The November meeting of the Monmouth County Medical Society was held at the Elk's Home in Red Bank, November 23. The society was honored in having Drs. Walt P. Conaway and J. B. Morrison, President and Recording Secretary, respectively, of the State Society, present at the meeting.

Dr. Conaway outlined the policies of the State Society for the coming year, and reviewed what has been accomplished in Group Insurance, and by formation of the Woman's Auxiliary. He stressed the need of public educational campaigns, and paid high tribute to Dr. Reik's energy and ability in making the Journal one of the leading state journals in the country.

Dr. Morrison, and Dr. George VanVorhis Warner, Monmouth County member of the Welfare Committee, discussed the report of the Welfare Committee, stressing in particular the public educational work, antidiphtheria campaign and the annual registration of physicians. Dr. Morrison explained that registration was necessary to raise funds to prosecute illegal practitioners.

The society went on record as approving this annual registration.

The scientific part of the program consisted of a discussion of the diagnostic aspects of "Acute Abdomen." Dr. Bradley Coley, of New York, read a very interesting paper on the subject, discussing the various acute surgical conditions commonly met with and stressing the great difficulties often encountered in making an exact diagnosis of the pathologic condition in a given case; the important thing being the recognition of an acute abdominal catastrophe urgently needing surgical intervention. Drs. H. B. Slocum, C. A. Pons, and W. G. Herrman discussed the paper.

The meeting adjourned after a buffet supper.

#### A Wise Youth

A small boy had just been vaccinated and the doctor prepared to bandage the sore arm when the youngster said, "Put it on the other arm, doctor."

"Why, no," said the physician. "I want to put the bandage on your sore arm so the boys at school won't hit you on it."

"Then put it on the other arm, please. You don't know the fellows at our school."—The American Boy Magazine.











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